

ESHMC 13-14 January 2009

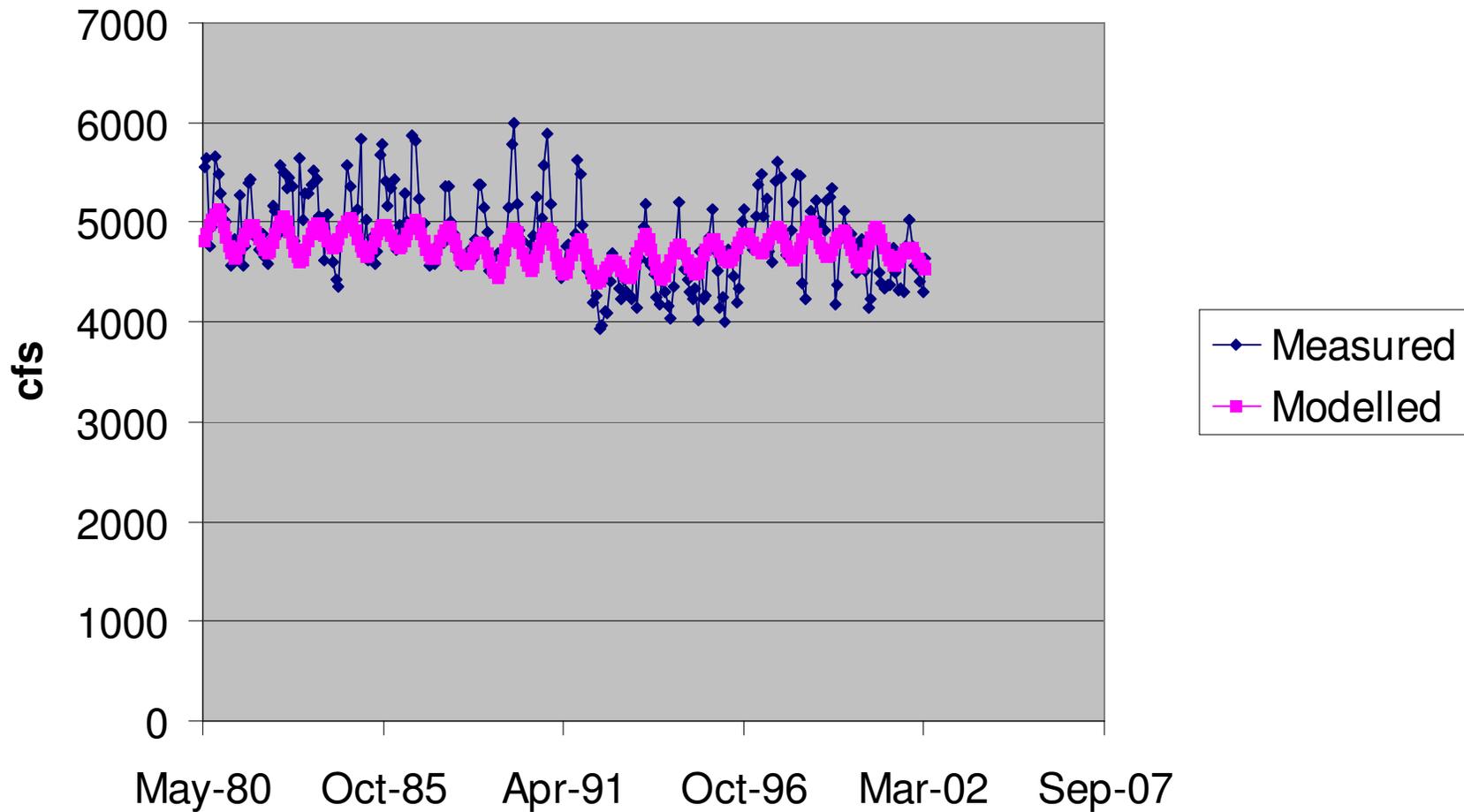
Allan Wylie
IDWR

Outline

- New targets
 - Unfiltered river gains
 - River gains below Kimberly
 - Physical properties
 - Steady state match
 - Transient match
- Boundary adjustment
 - Physical properties
 - Steady state match
 - Transient match

New Targets

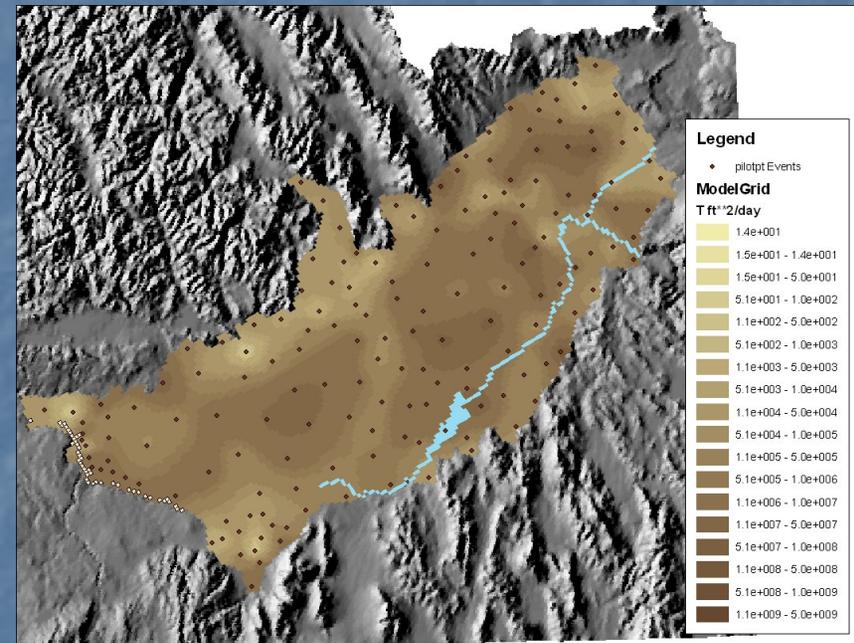
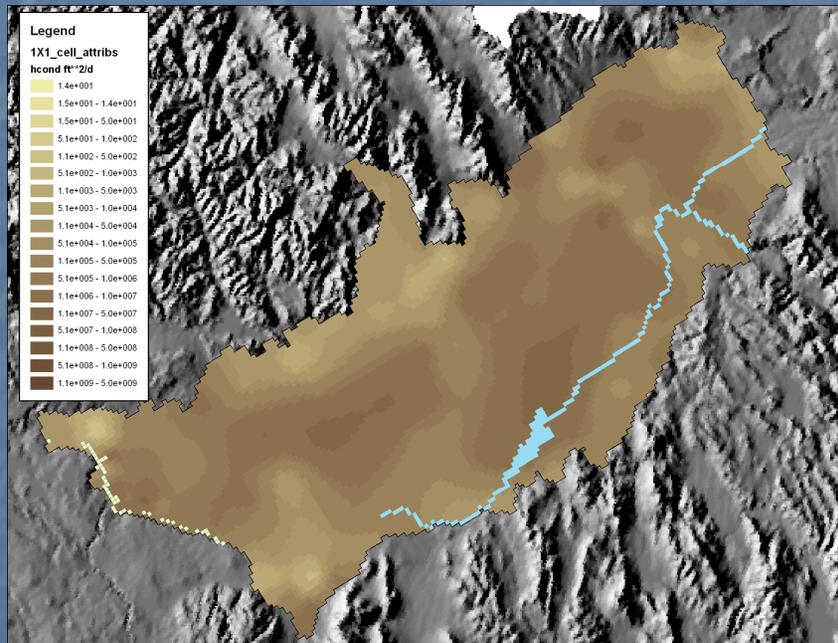
Kim_LSF



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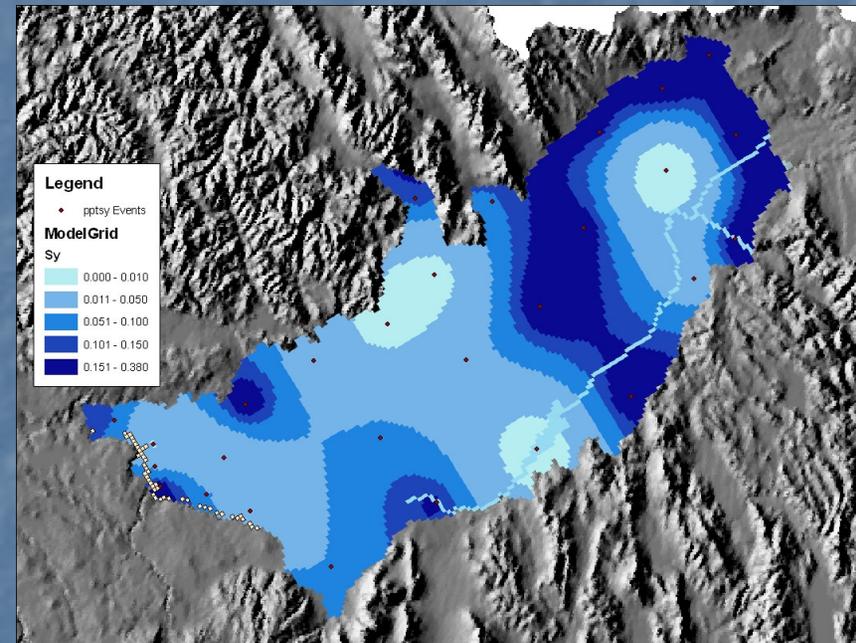
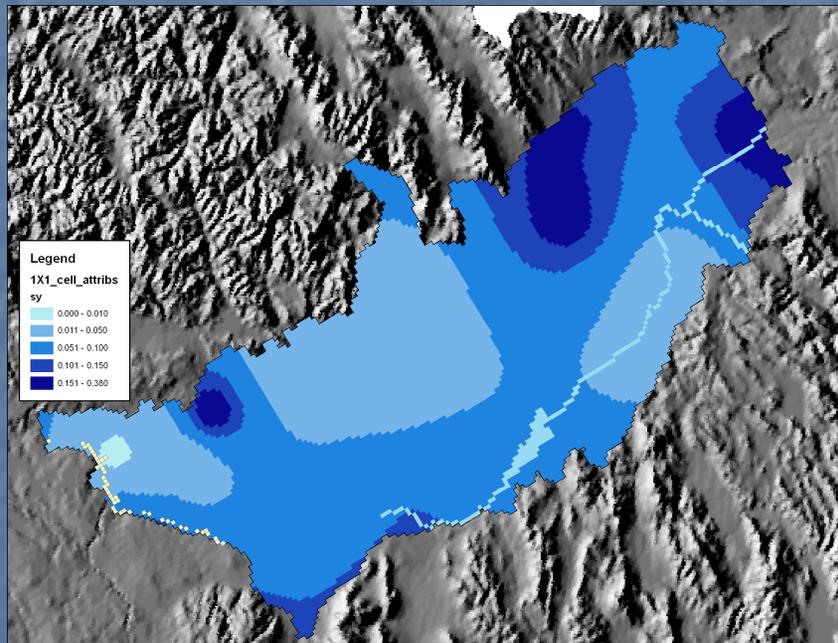
New Targets Transmissivity

V 1.1



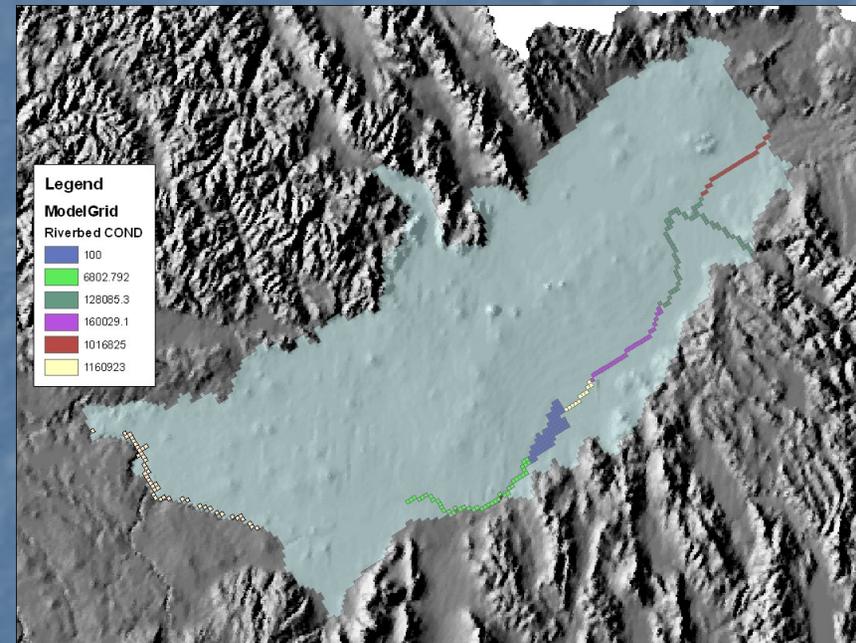
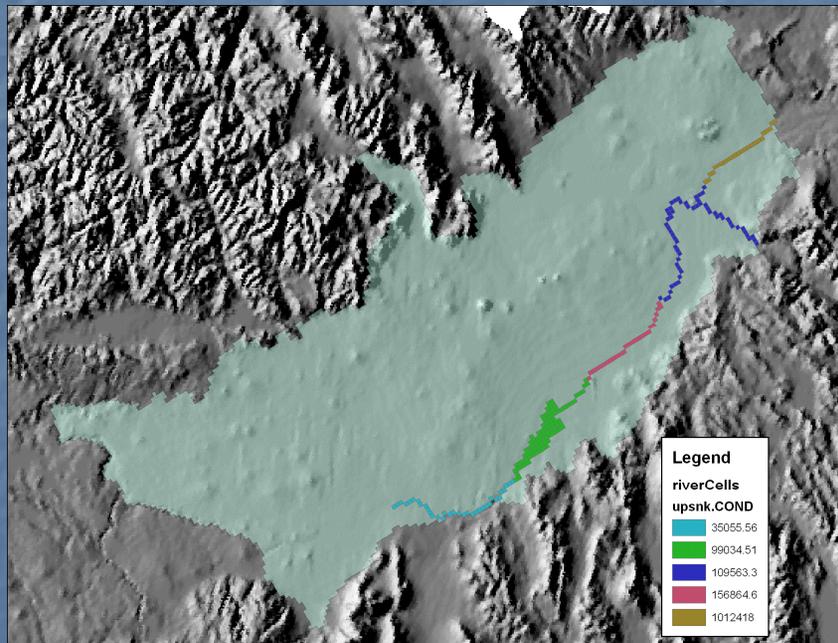
New Targets Storage

V 1.1



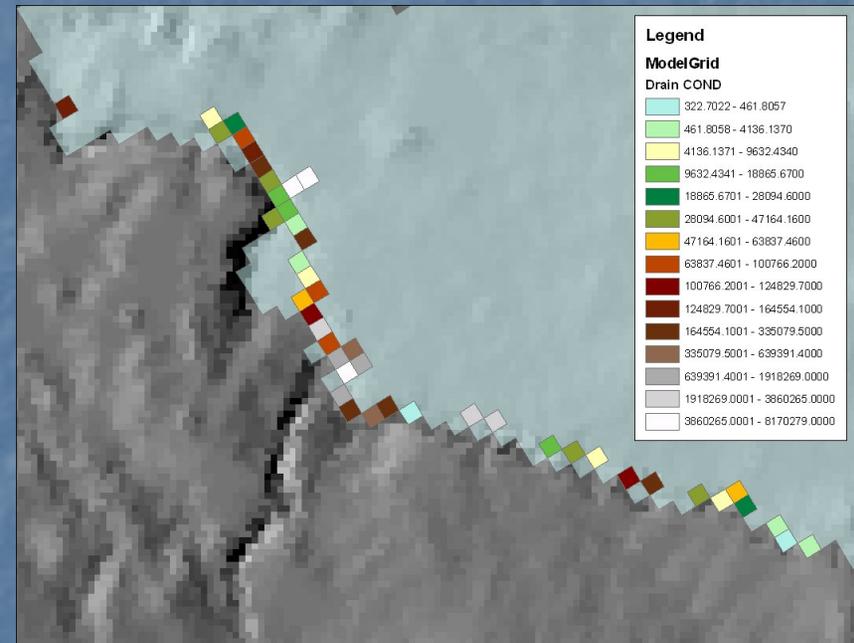
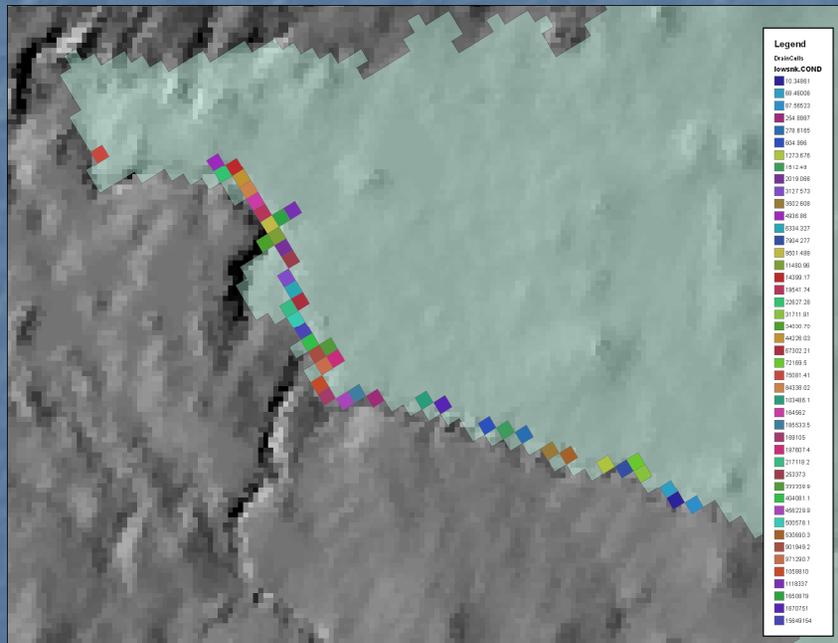
New Targets Riverbed conductance

V 1.1

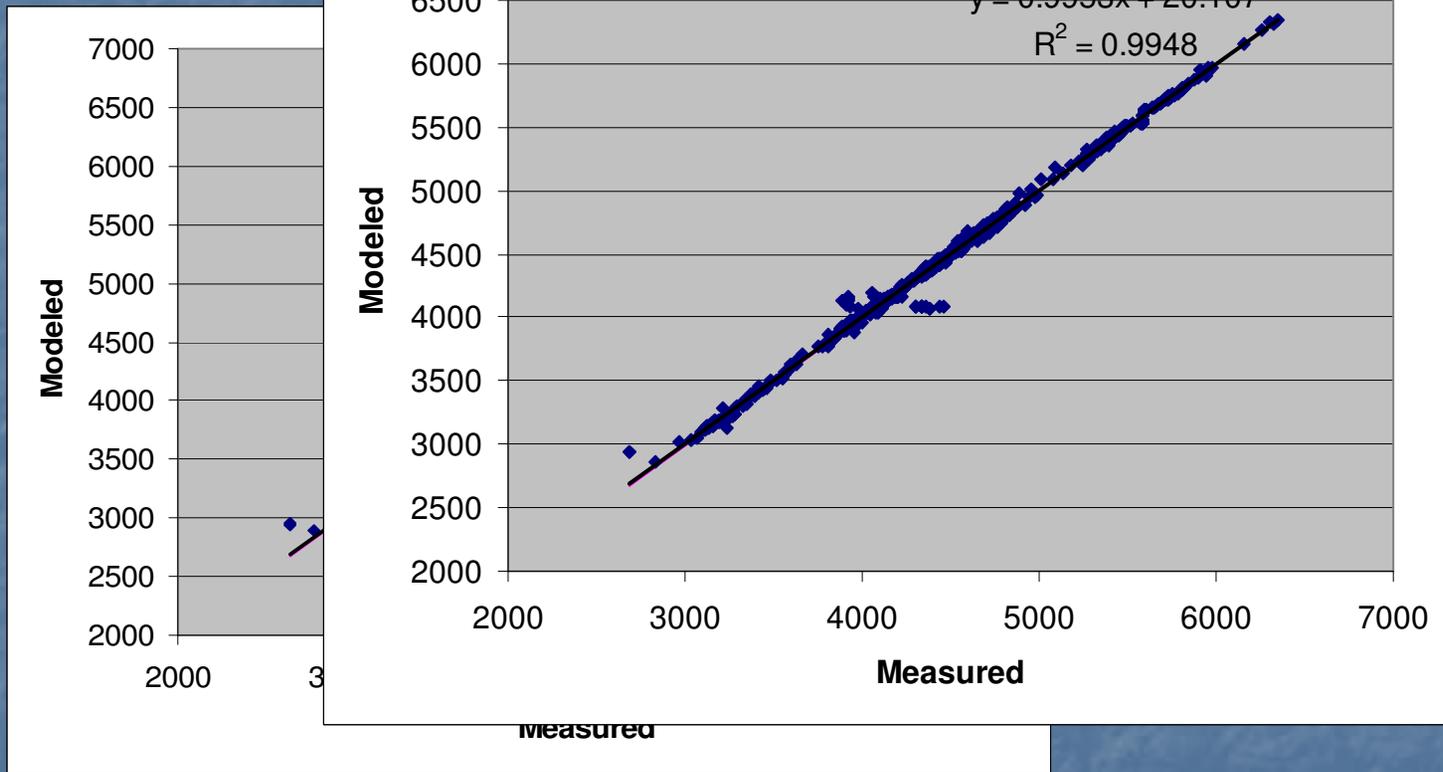


New Targets Drain Conductance

V 1.1

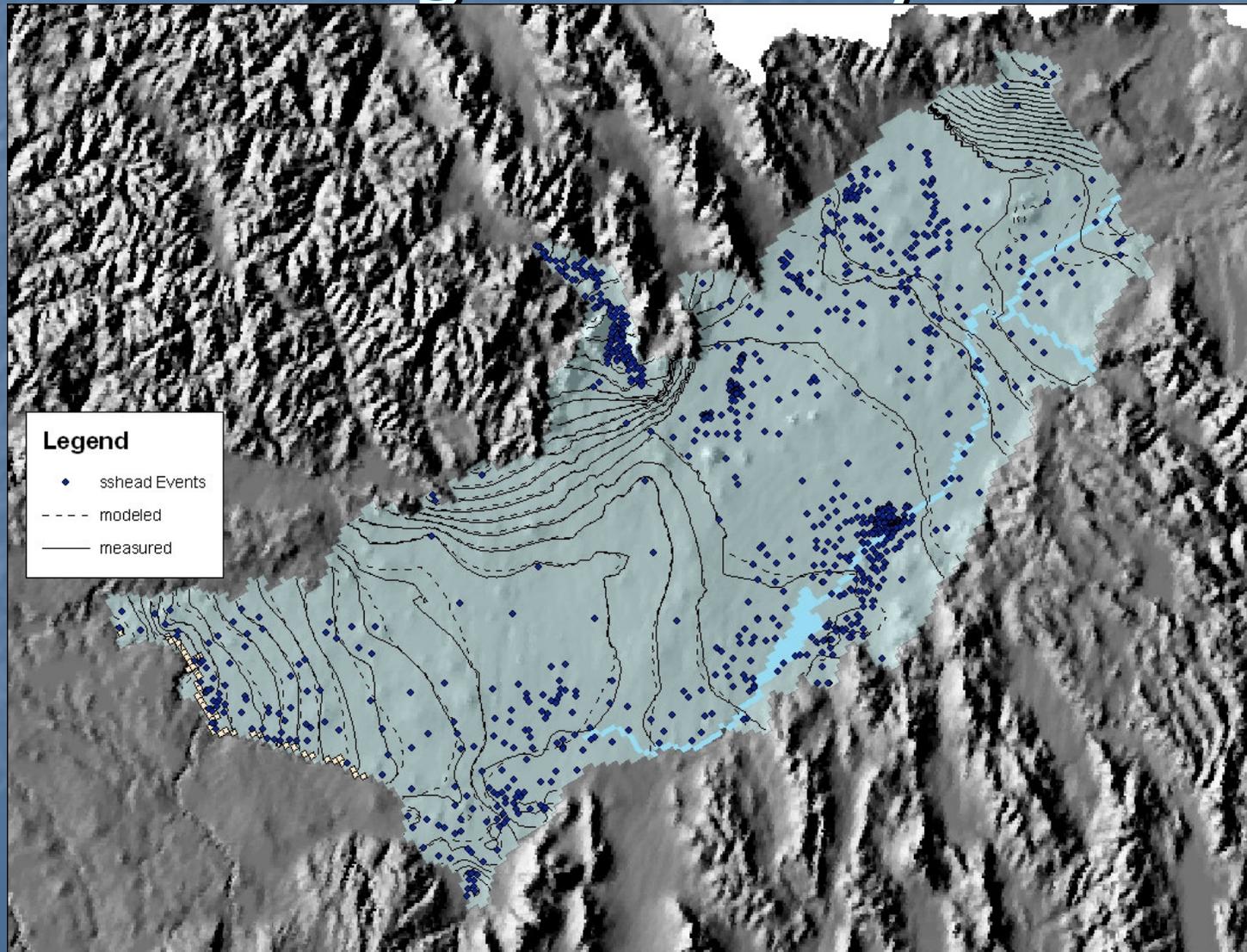


New Targets Steady state

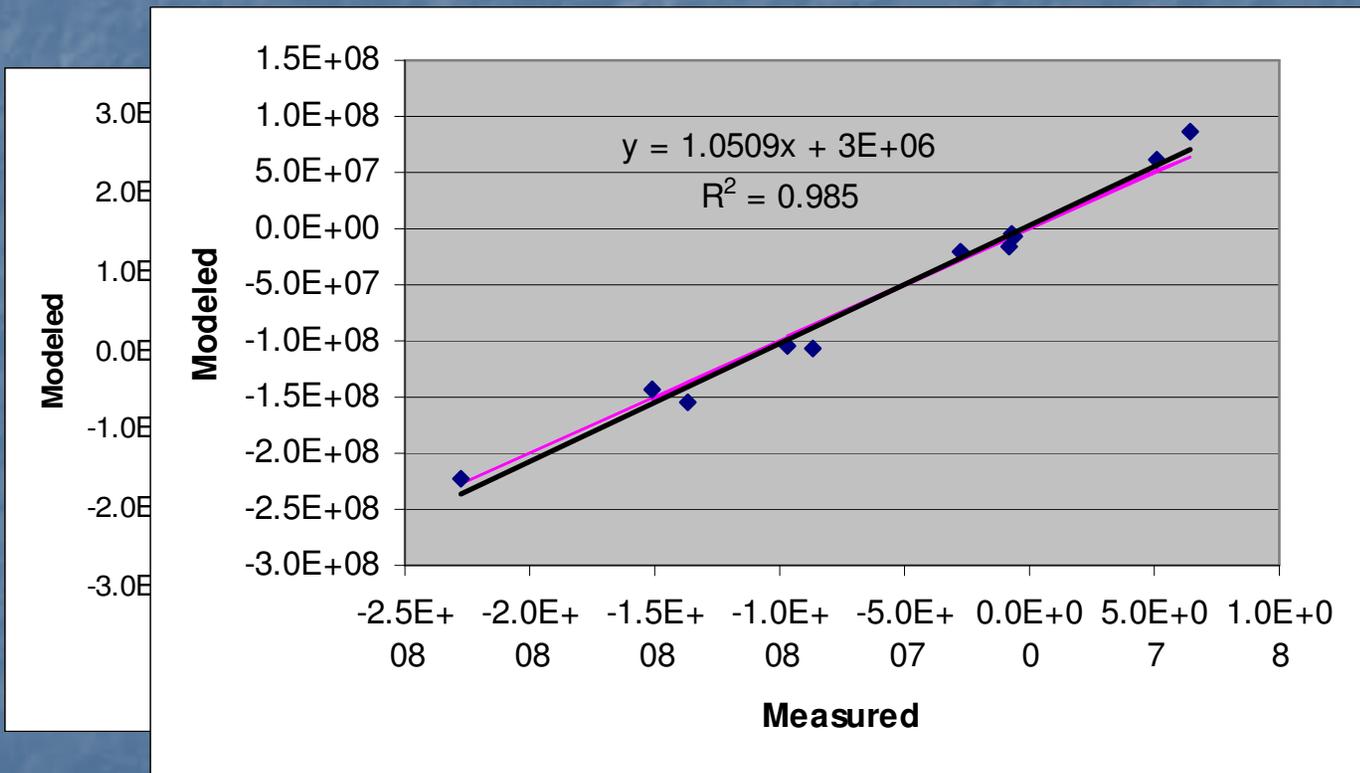


line is 45°
were a
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 $x + 0$
 $= 1$

New Targets Steady state



New Targets Steady state



and loss

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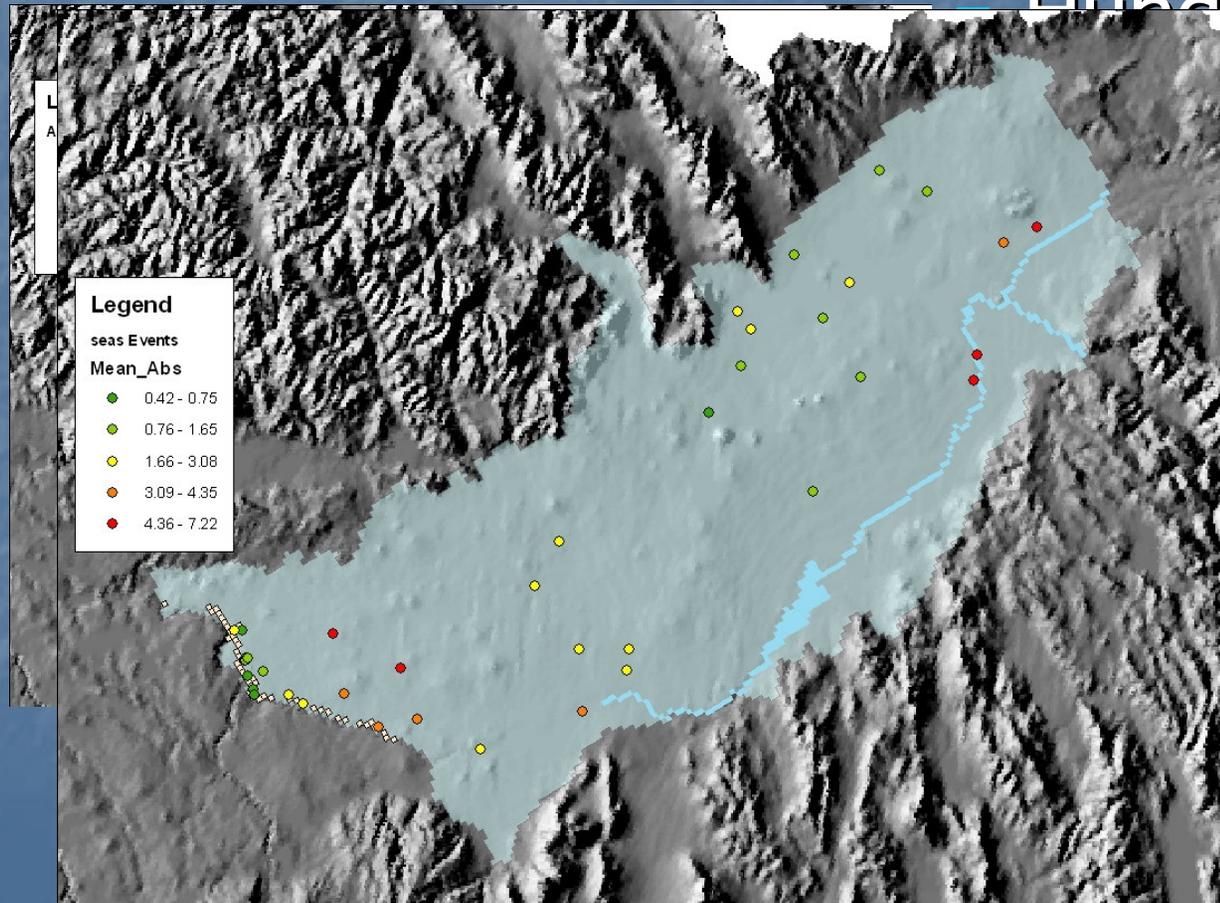
reference line is 45°

if this were a perfect match

$$Y = 1x + 0$$

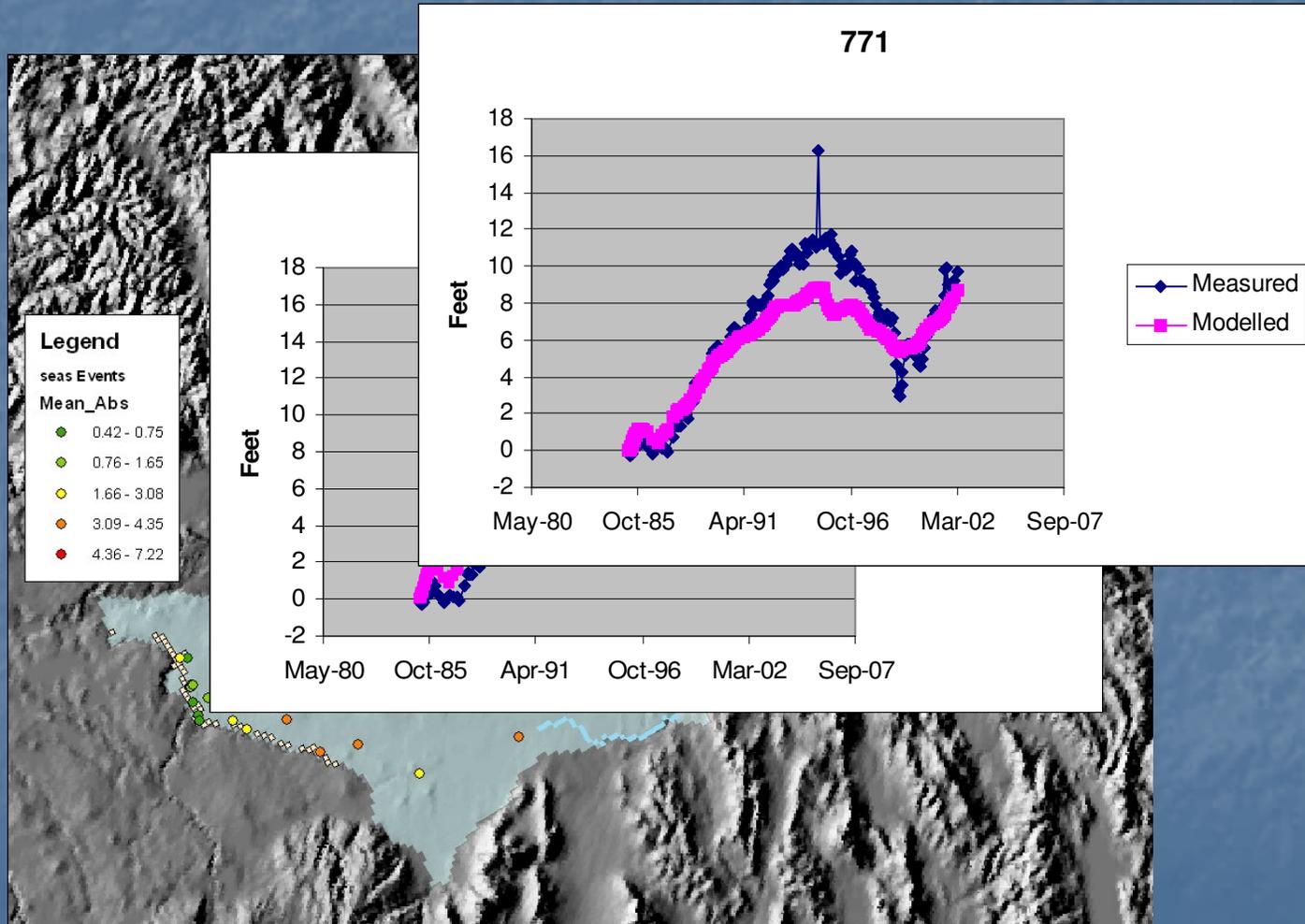
$$R^2 = 1$$

New Targets Seasonal data set

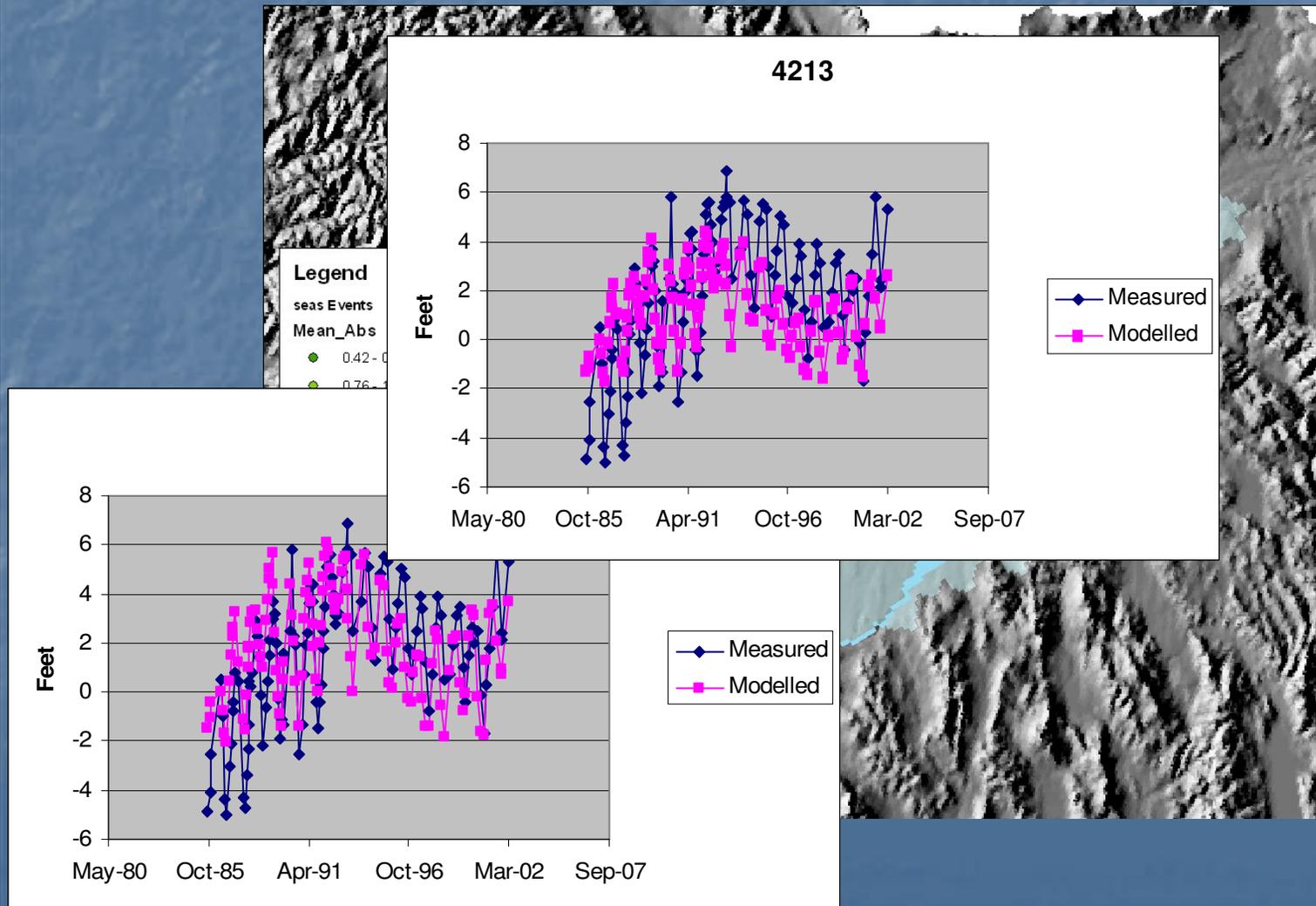


Hundreds to
thousands of
observations
of data
over a limited spatial
coverage

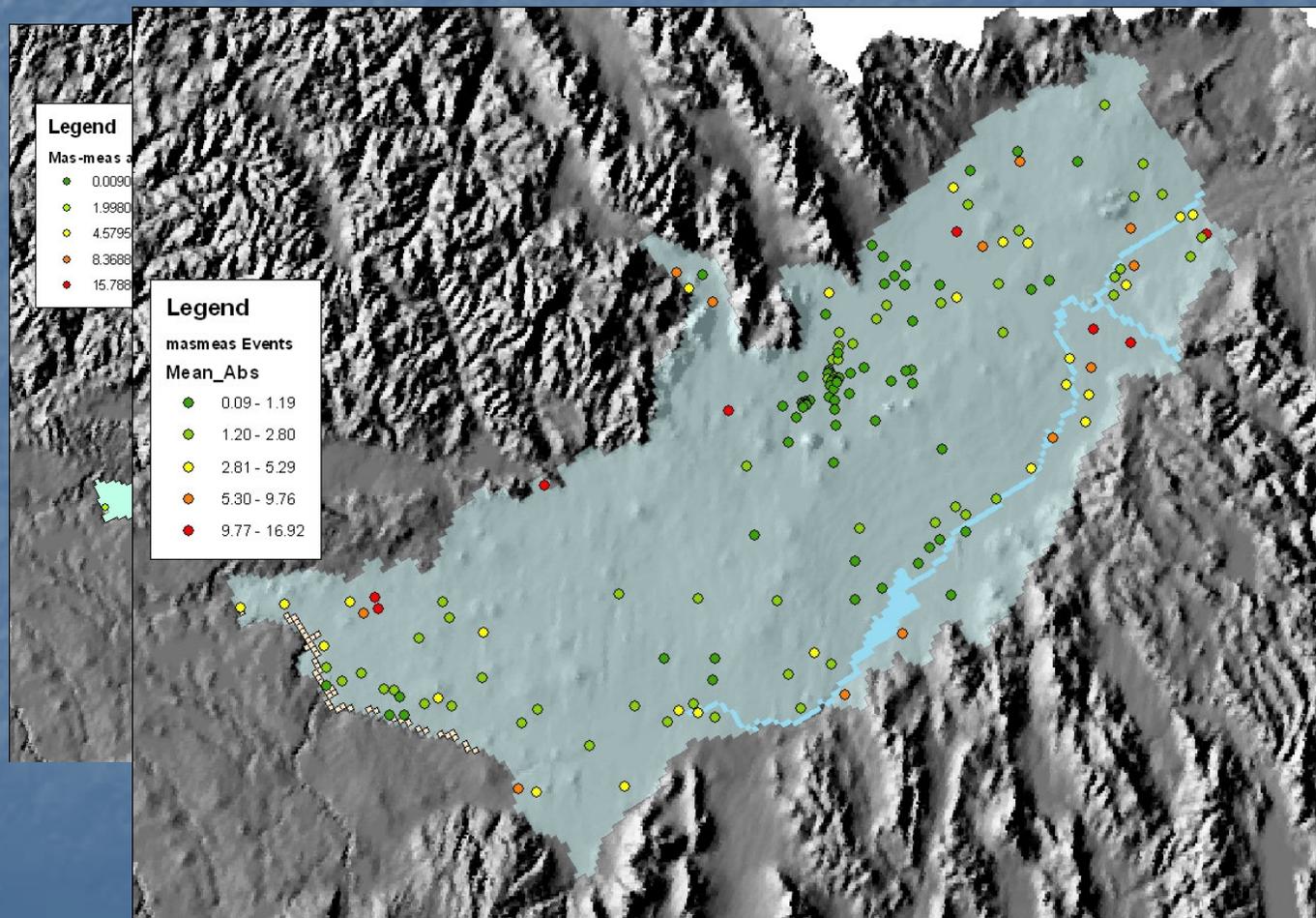
New Targets Seasonal data set



New Targets Seasonal data set

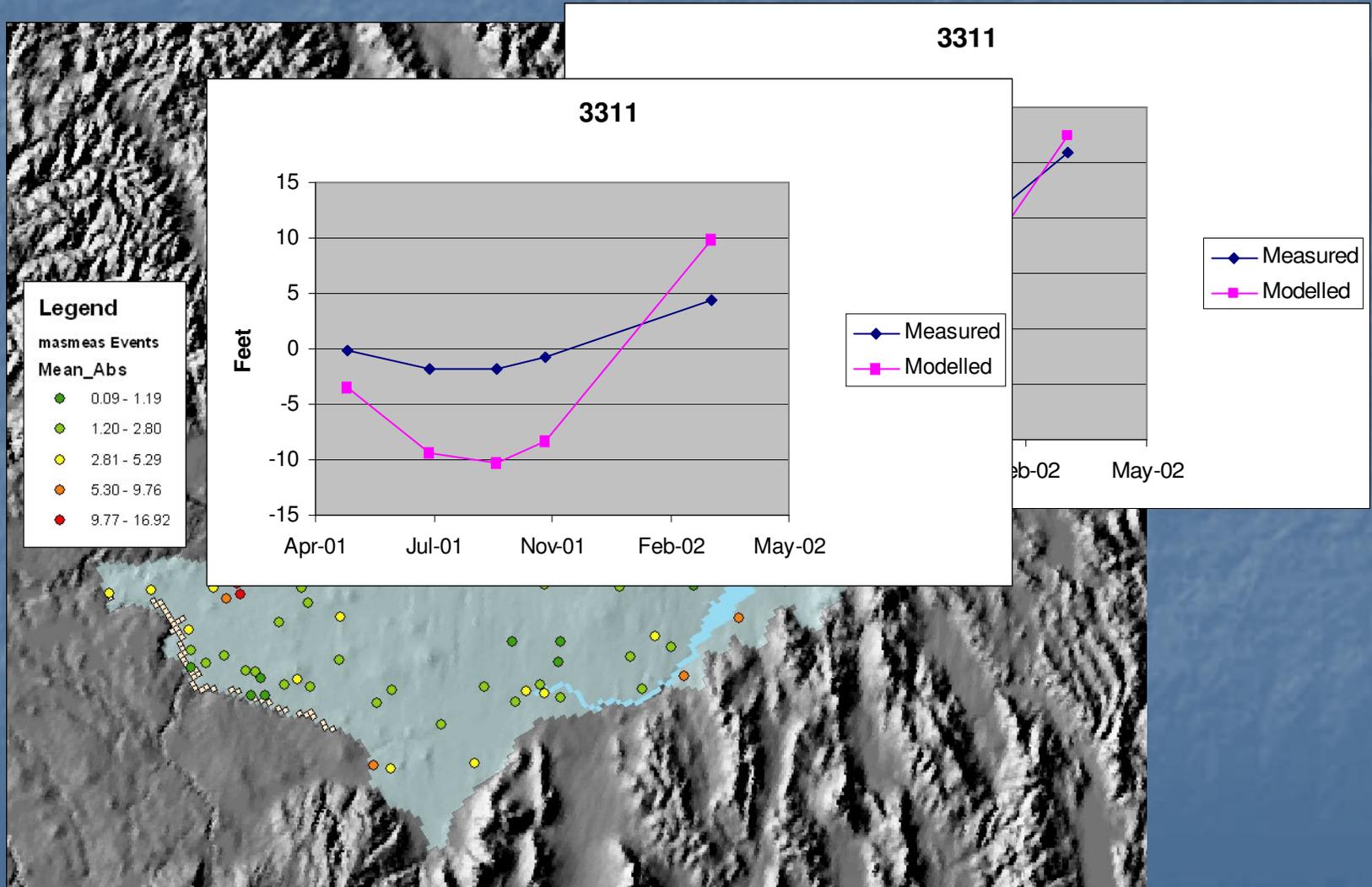


New Targets Mass measurement

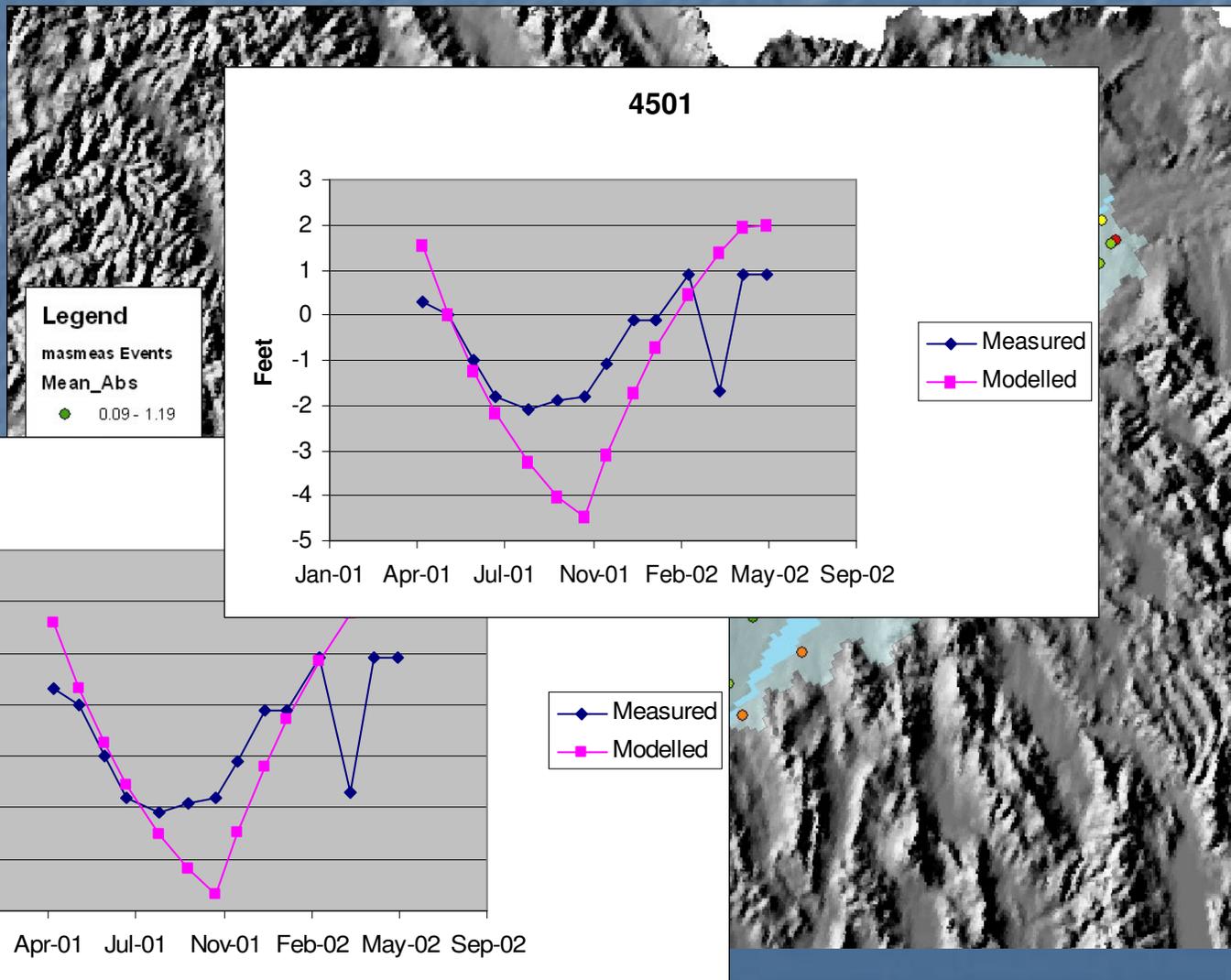


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effort
1 -5/8/2002

New Targets Mass measurement

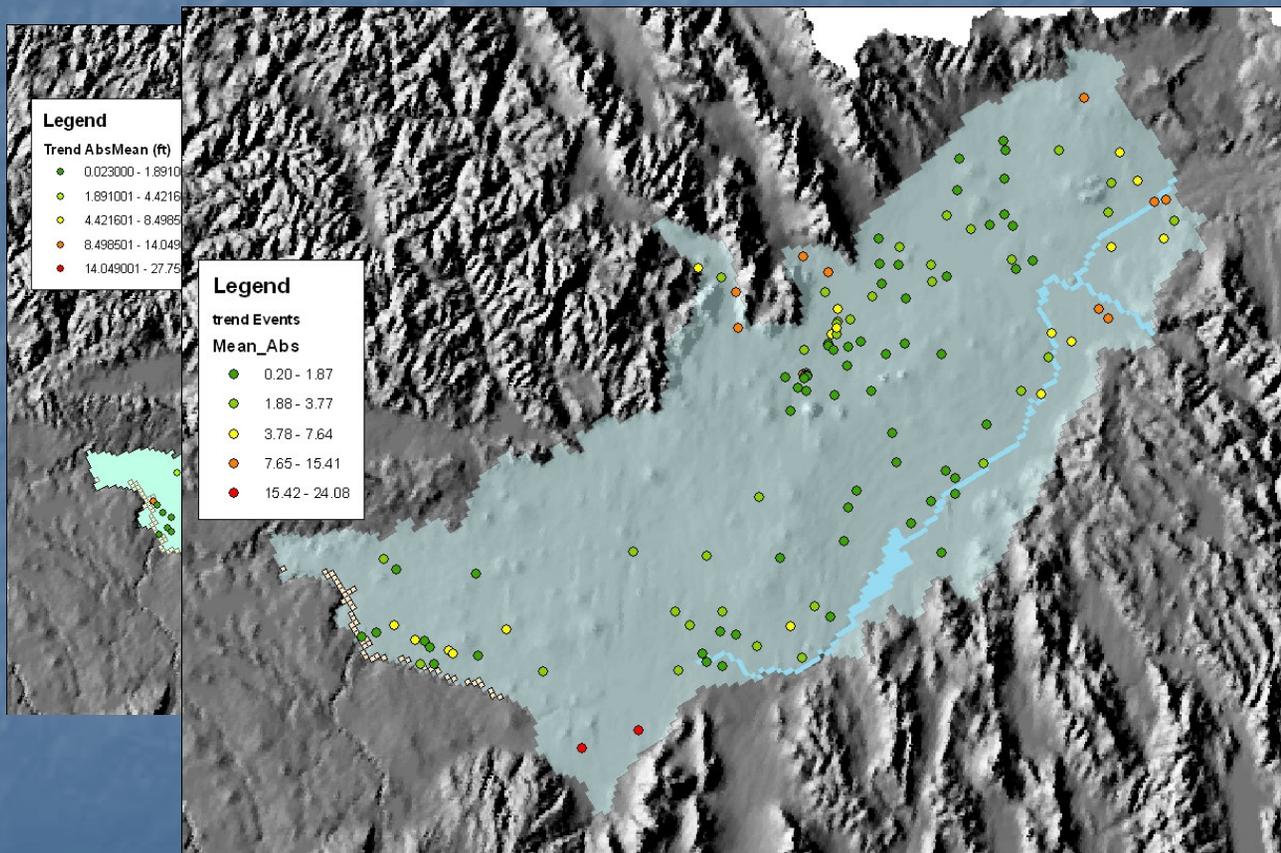


New Targets Mass measurement

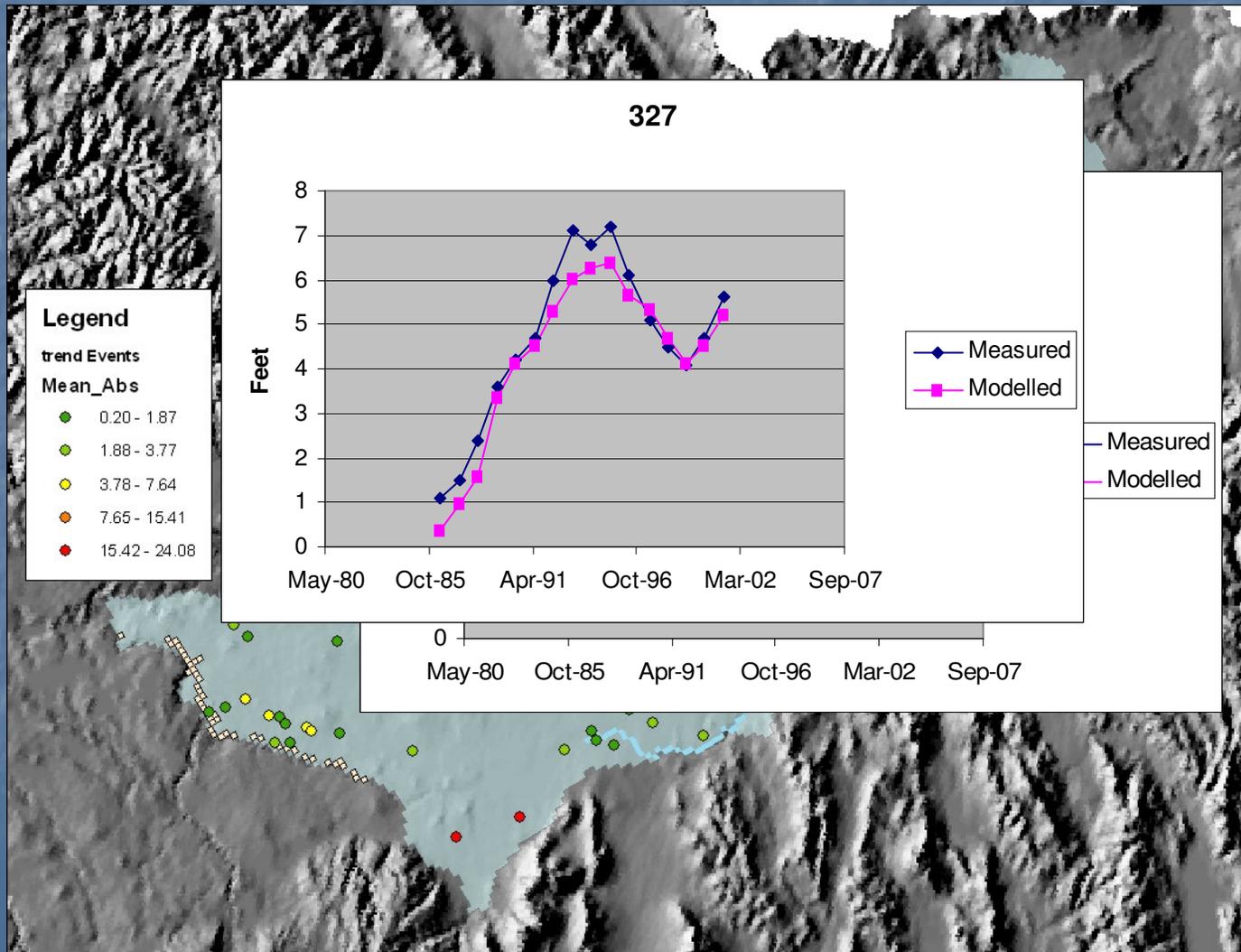


New Targets Trend

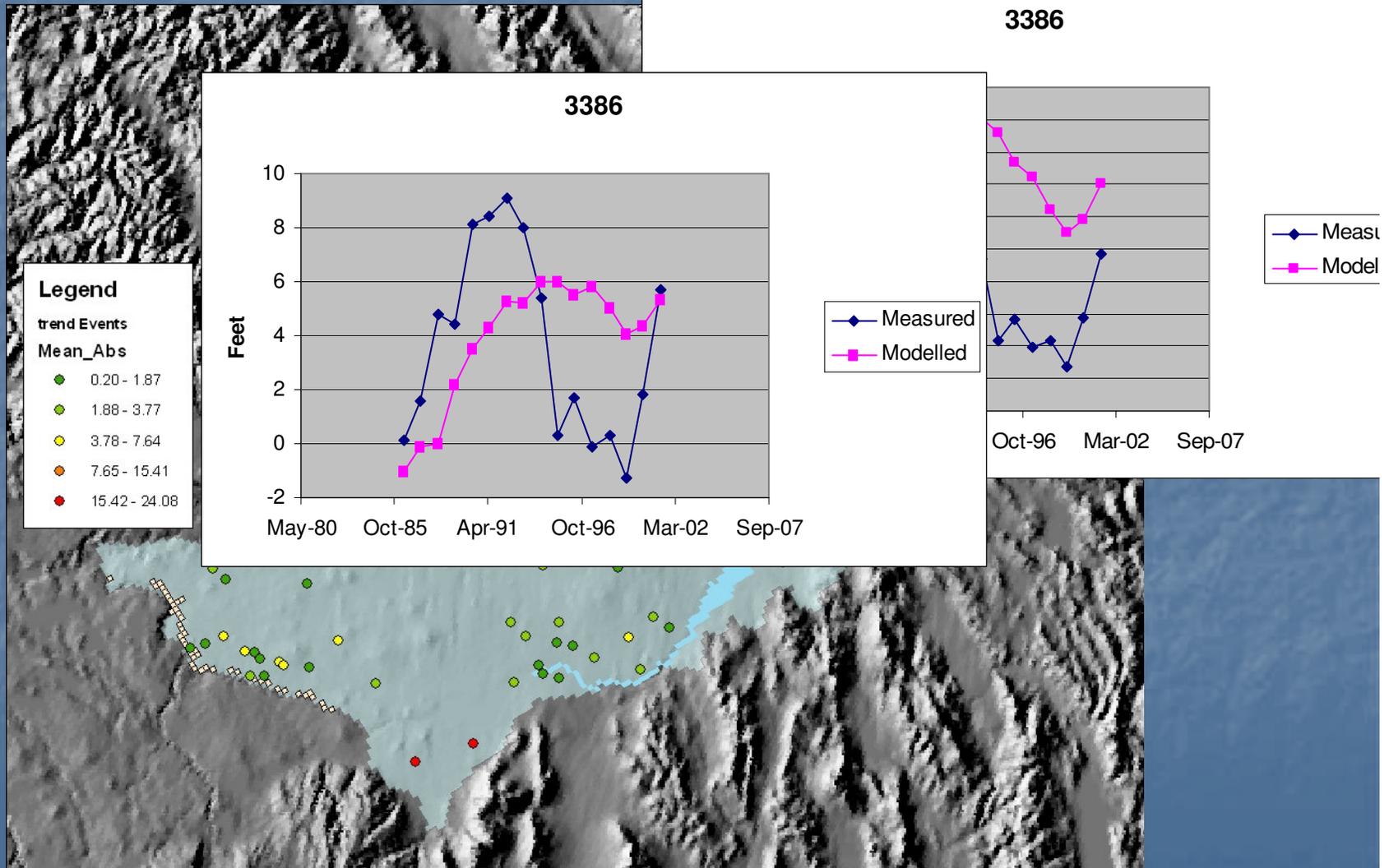
observations



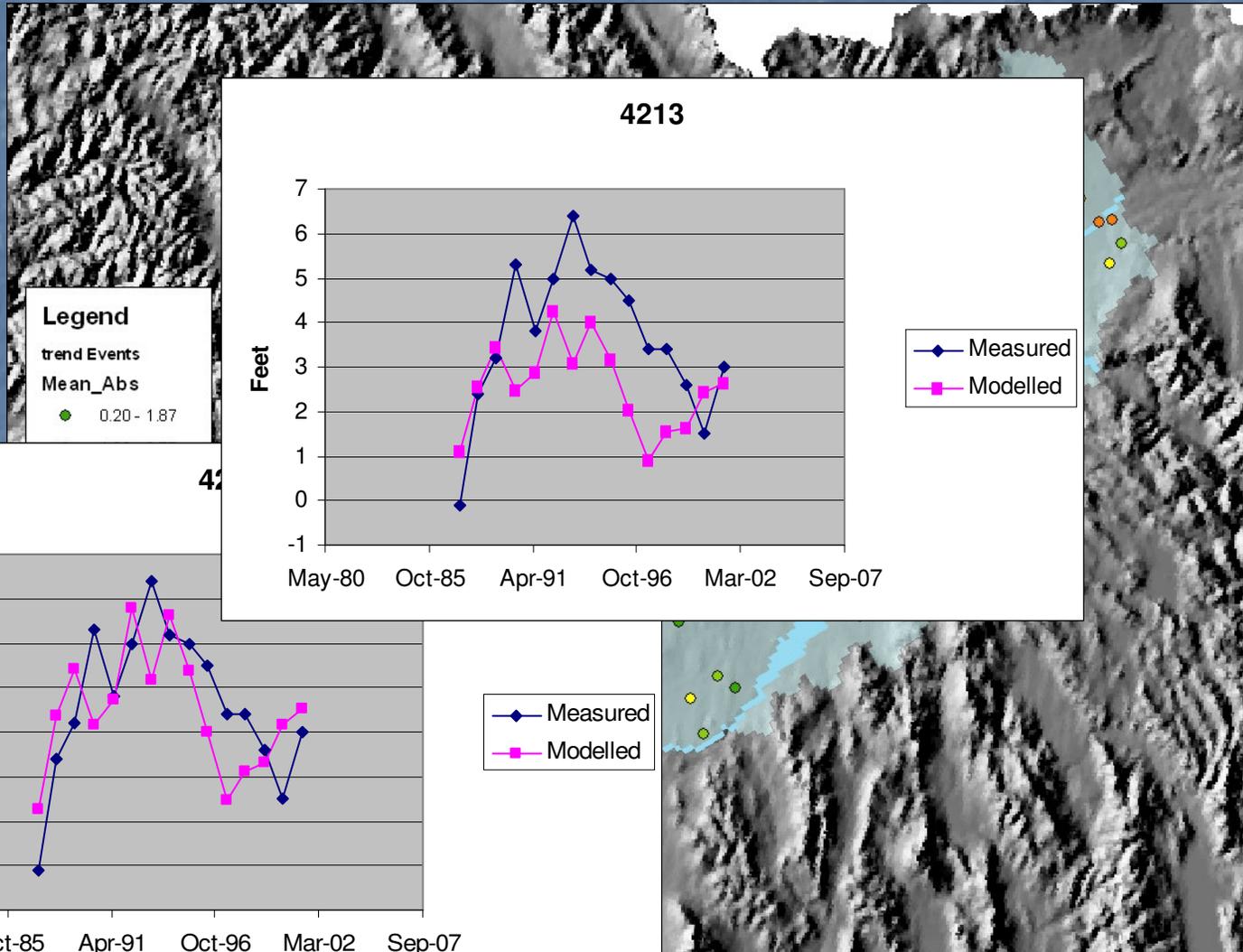
New Targets Trend



New Targets Trend

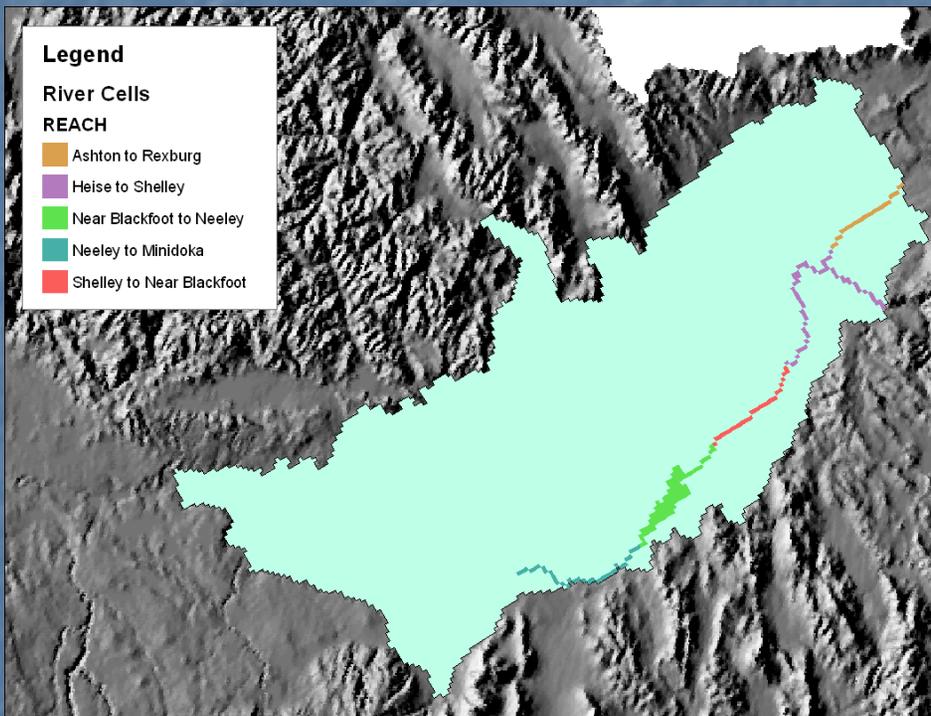


New Targets Trend



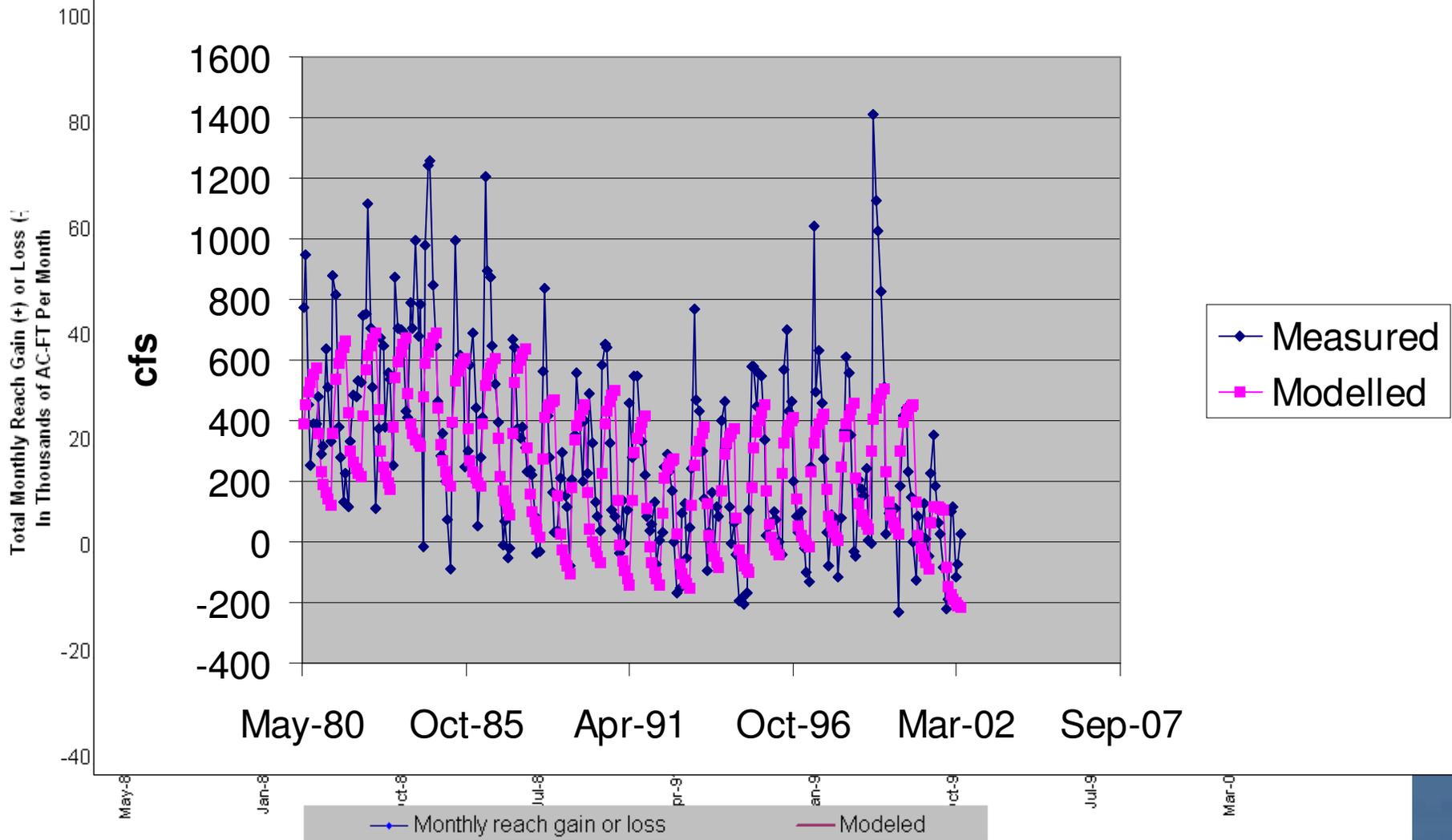
New Targets Snake River

- Snake River reaches



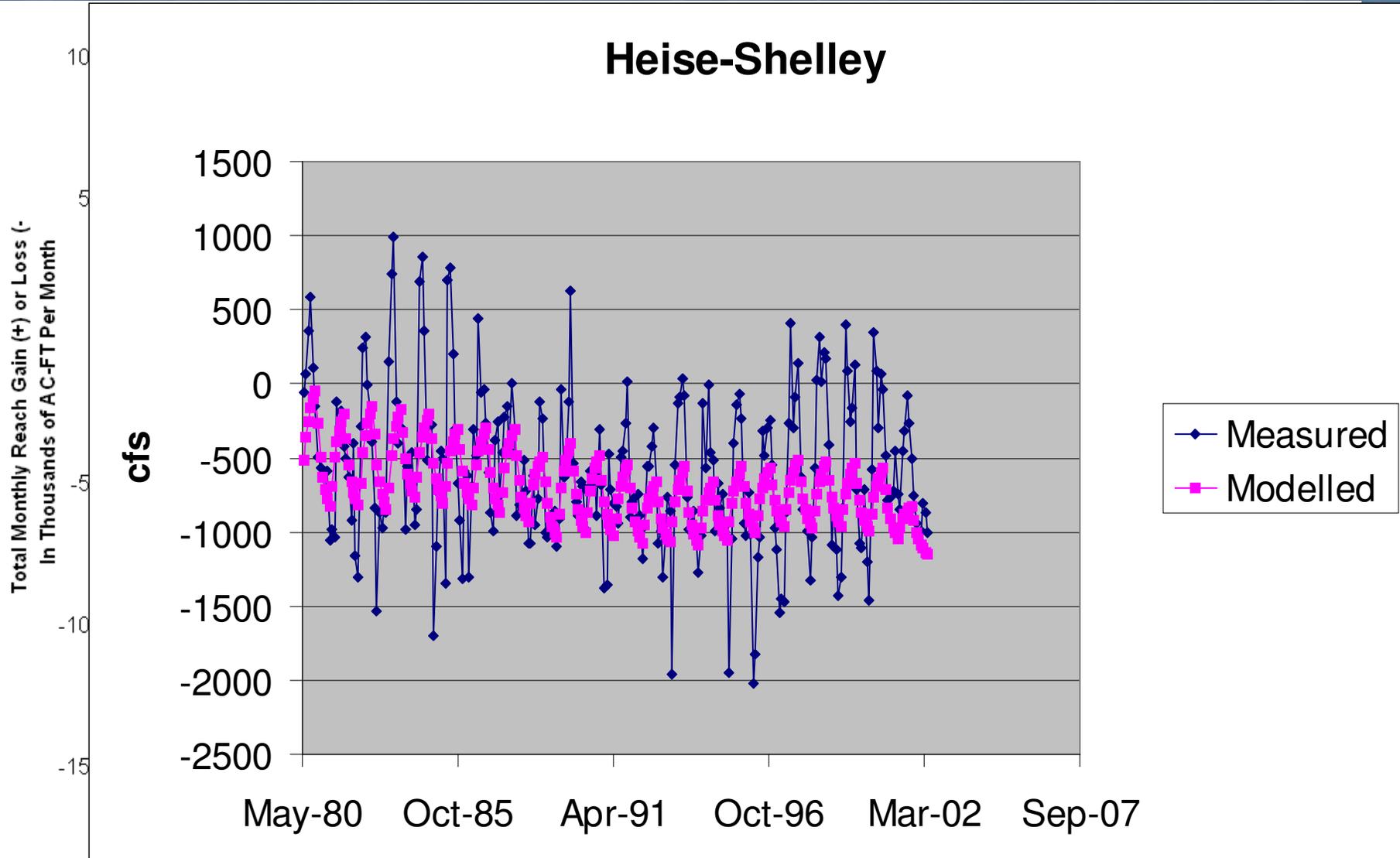
New Targets Snake River

Ashton-Rexburg

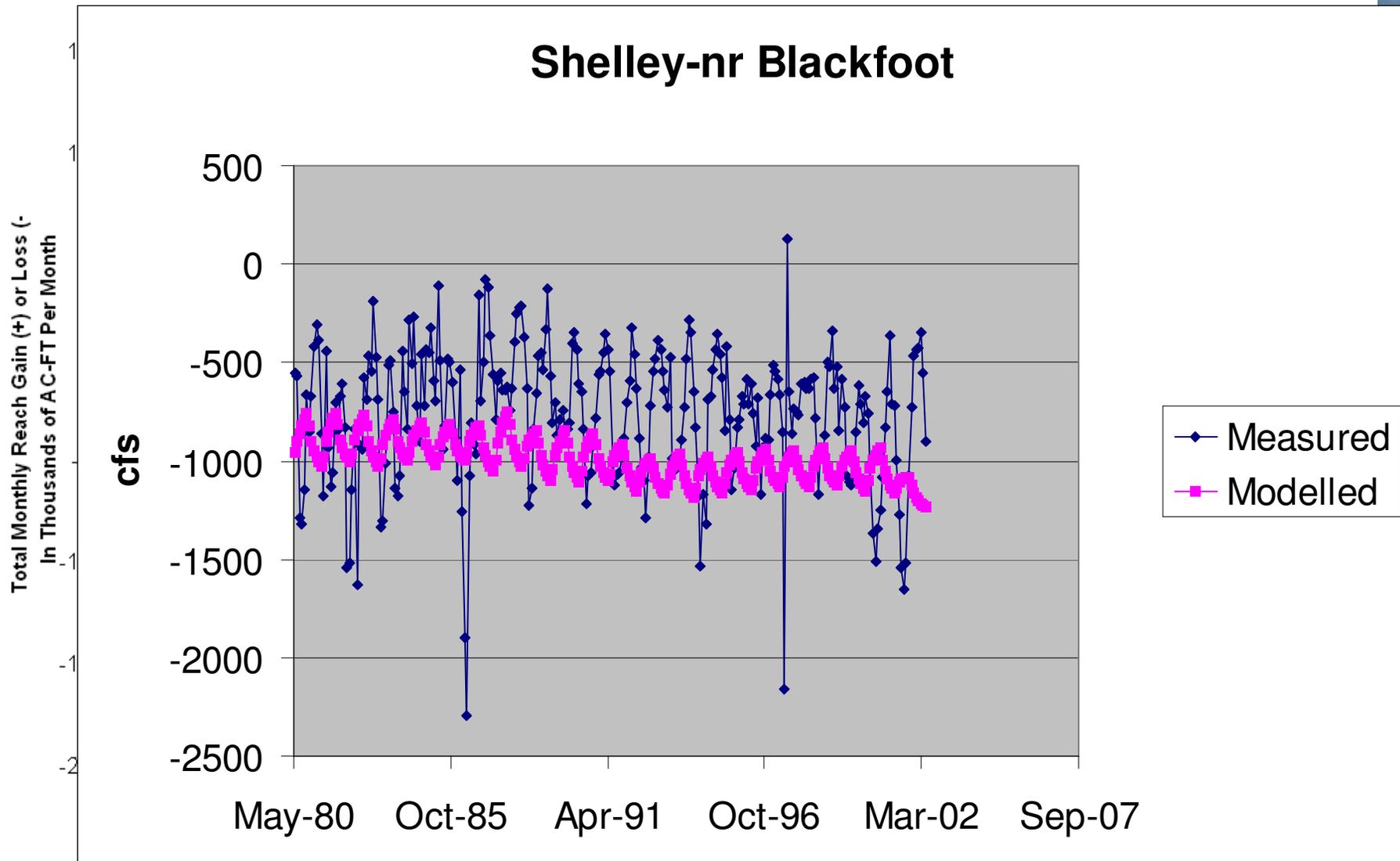


New Targets Snake River

Heise-Shelley

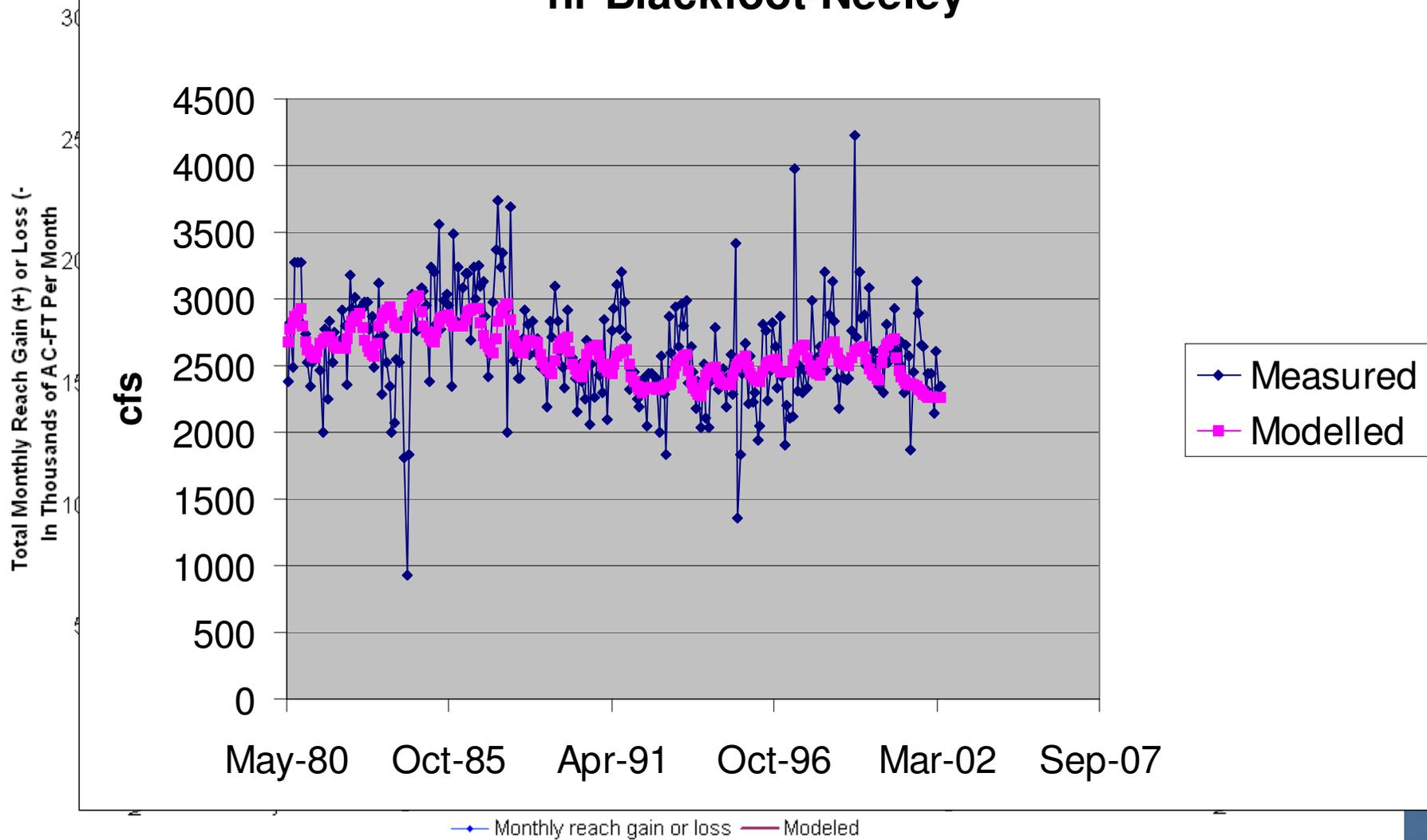


New Targets Snake River

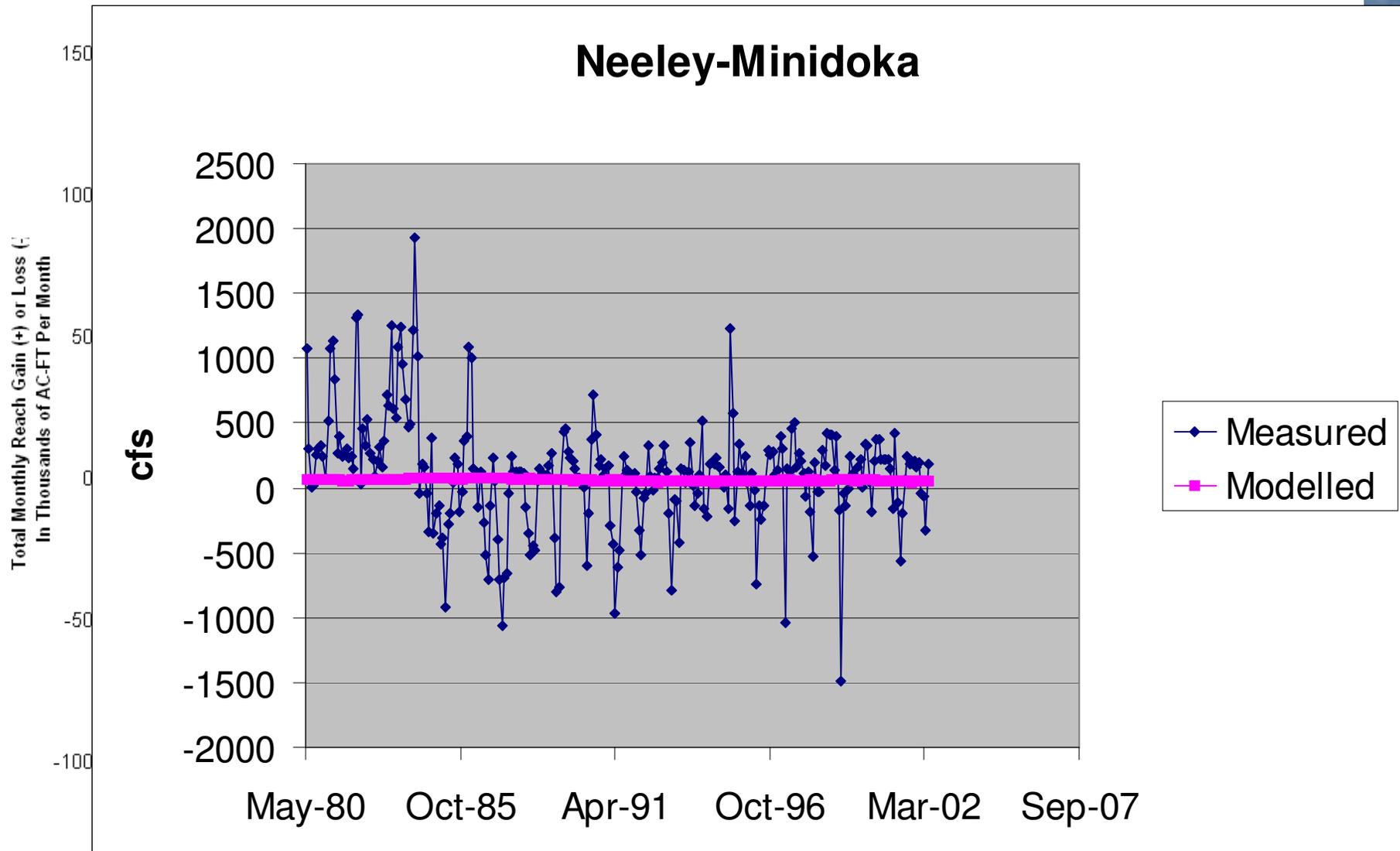


New Targets Snake River

nr Blackfoot-Neeley

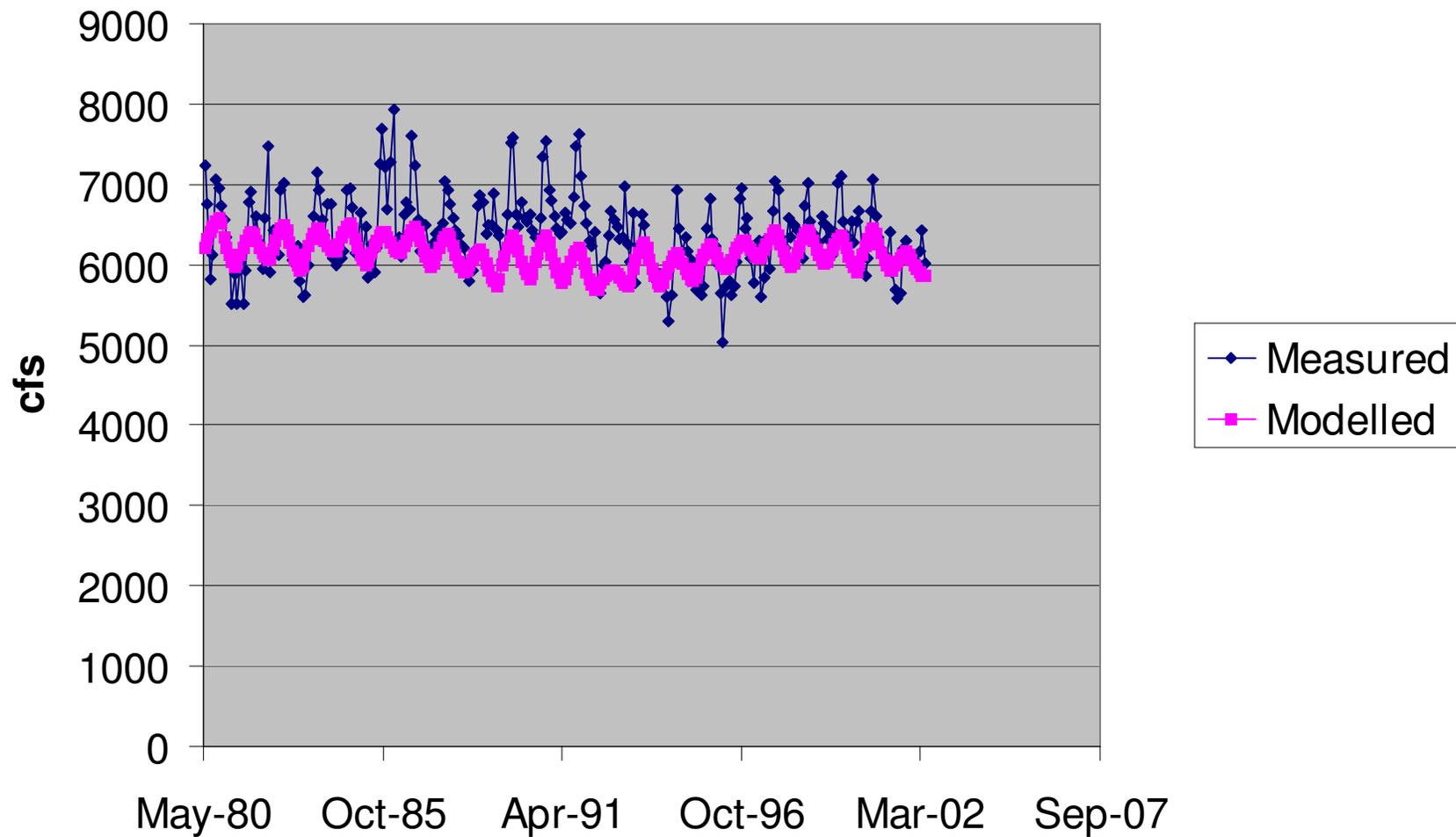


New Targets Snake River



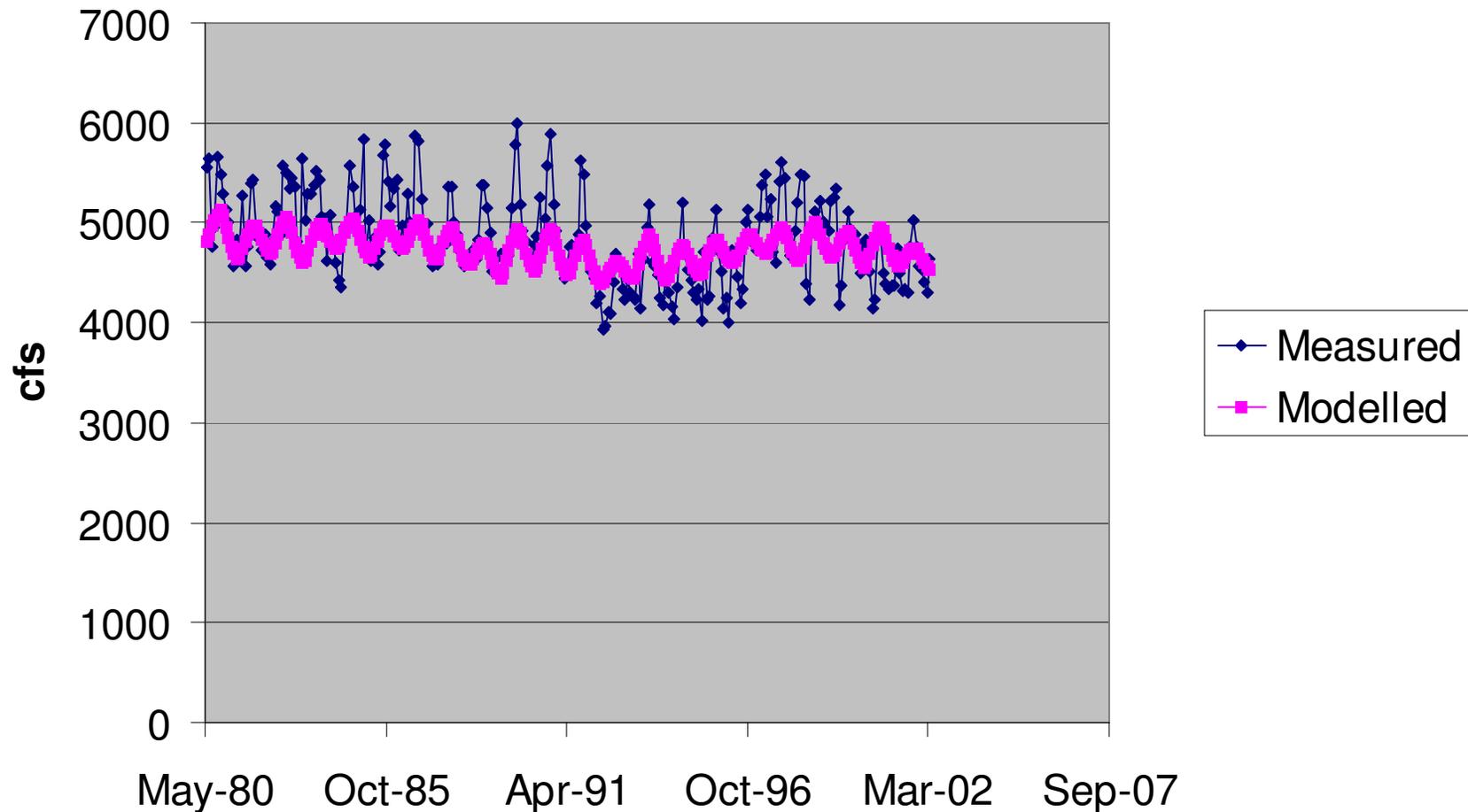
New Targets Snake River

Kim_KH



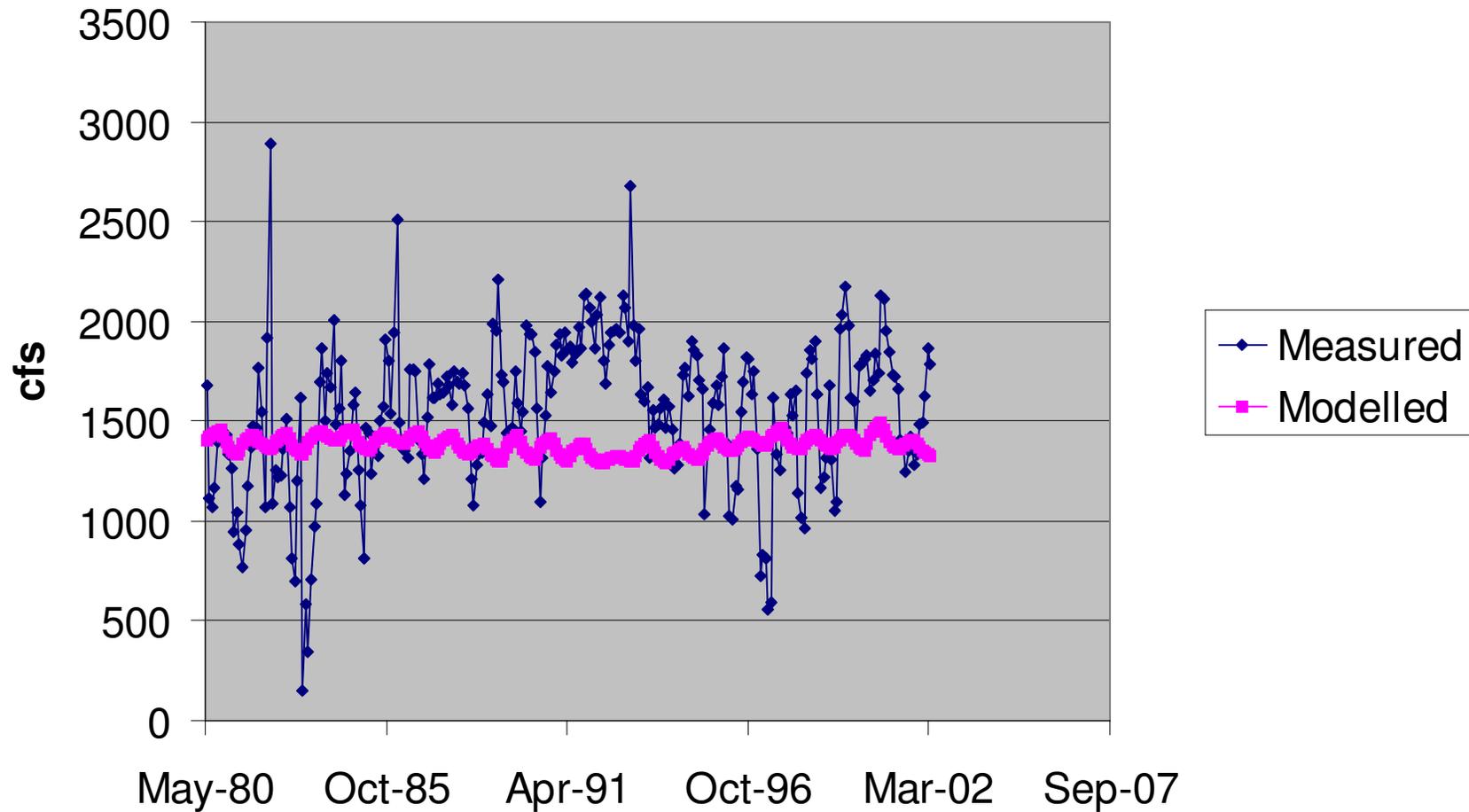
New Targets Snake River

Kim_LSF



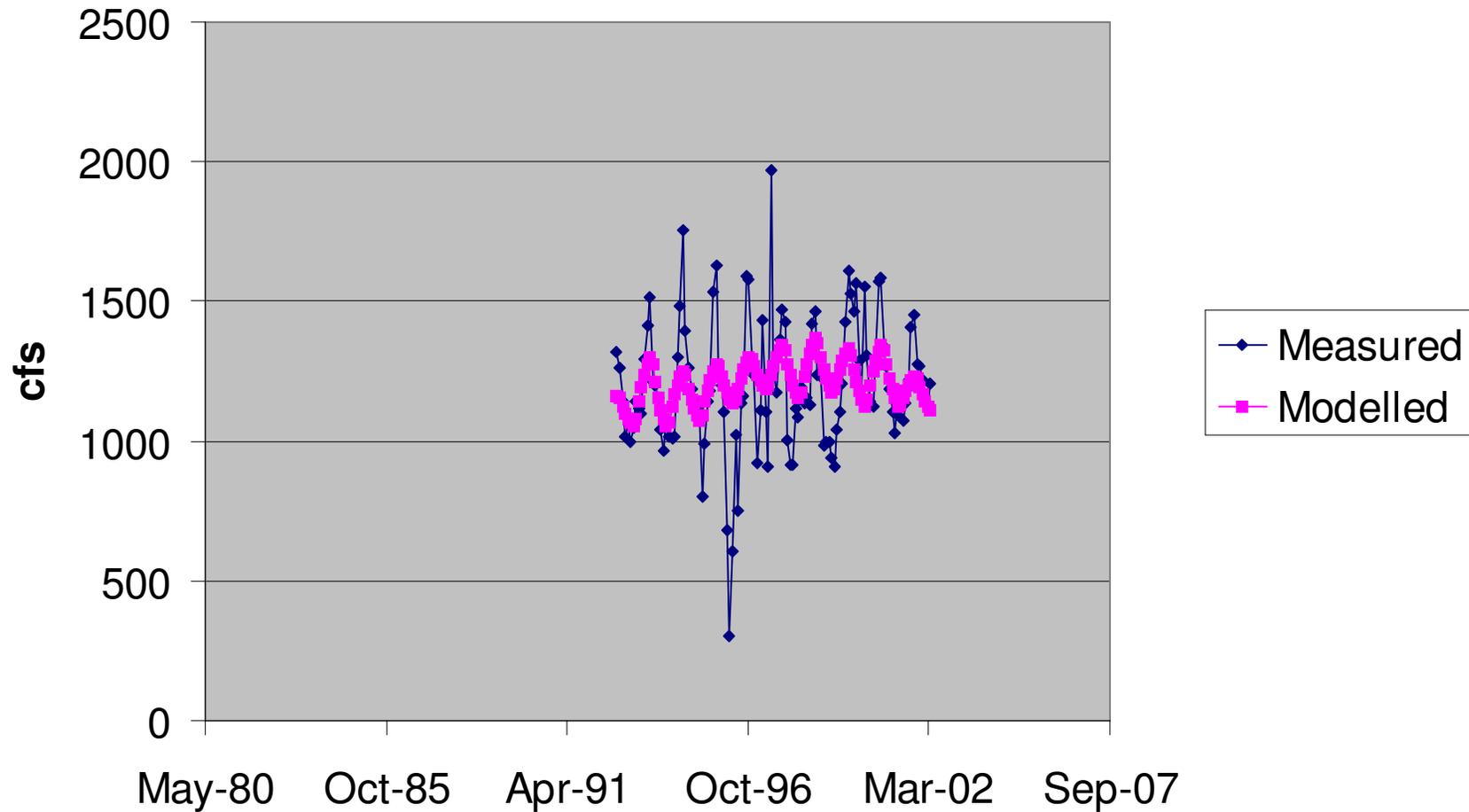
New Targets Snake River

LSF_Kh



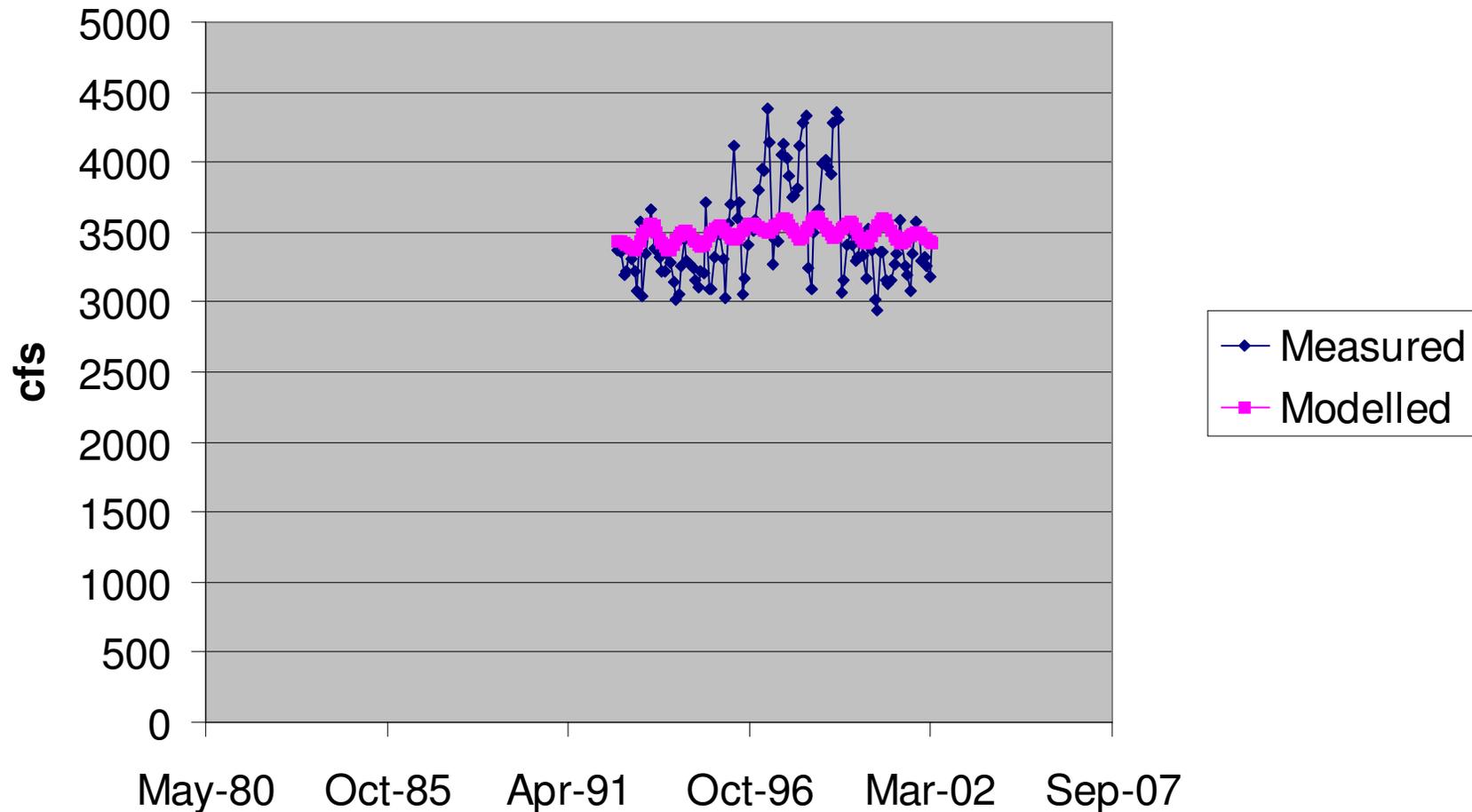
New Targets Snake River

Kim_Bul

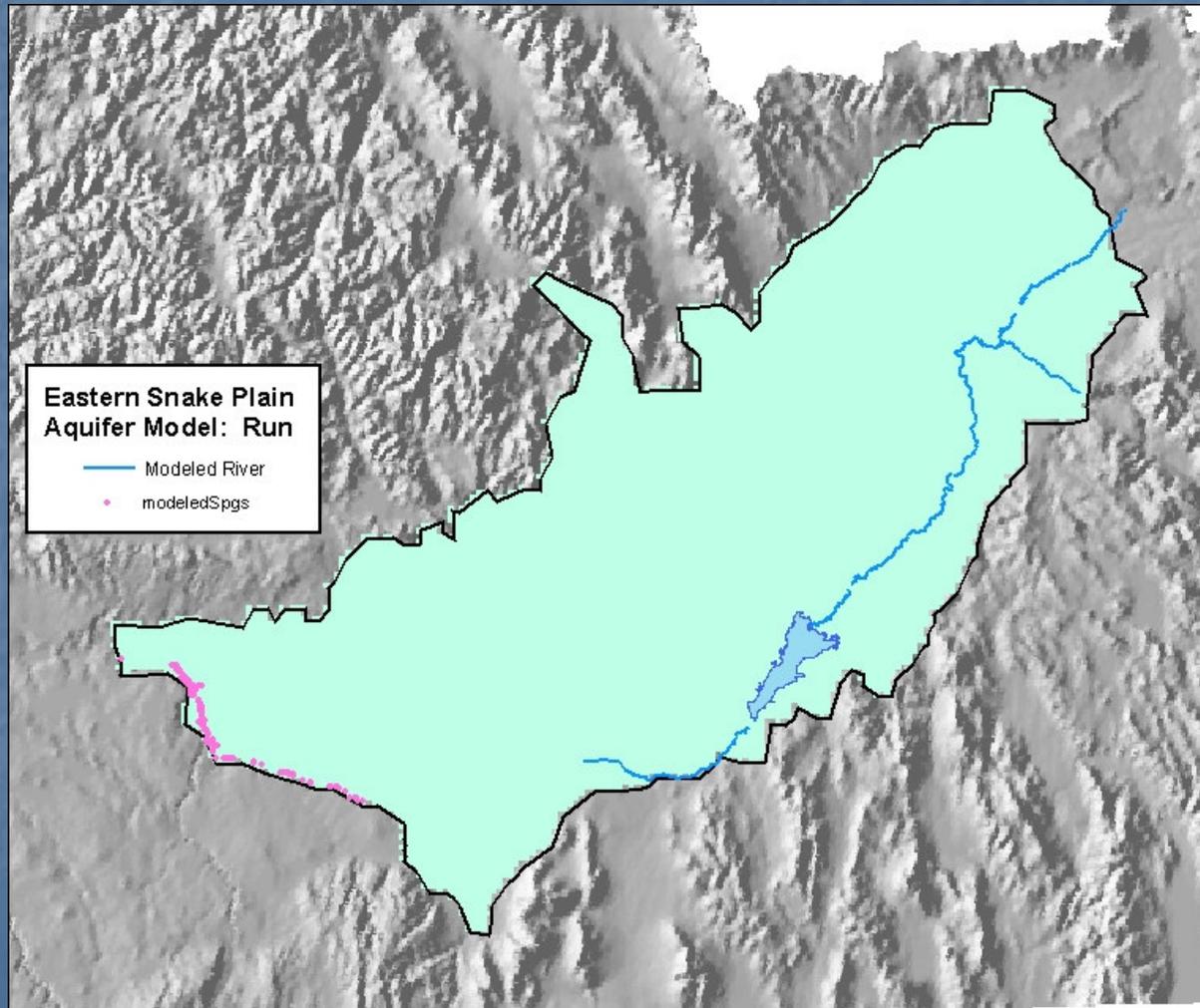


New Targets Snake River

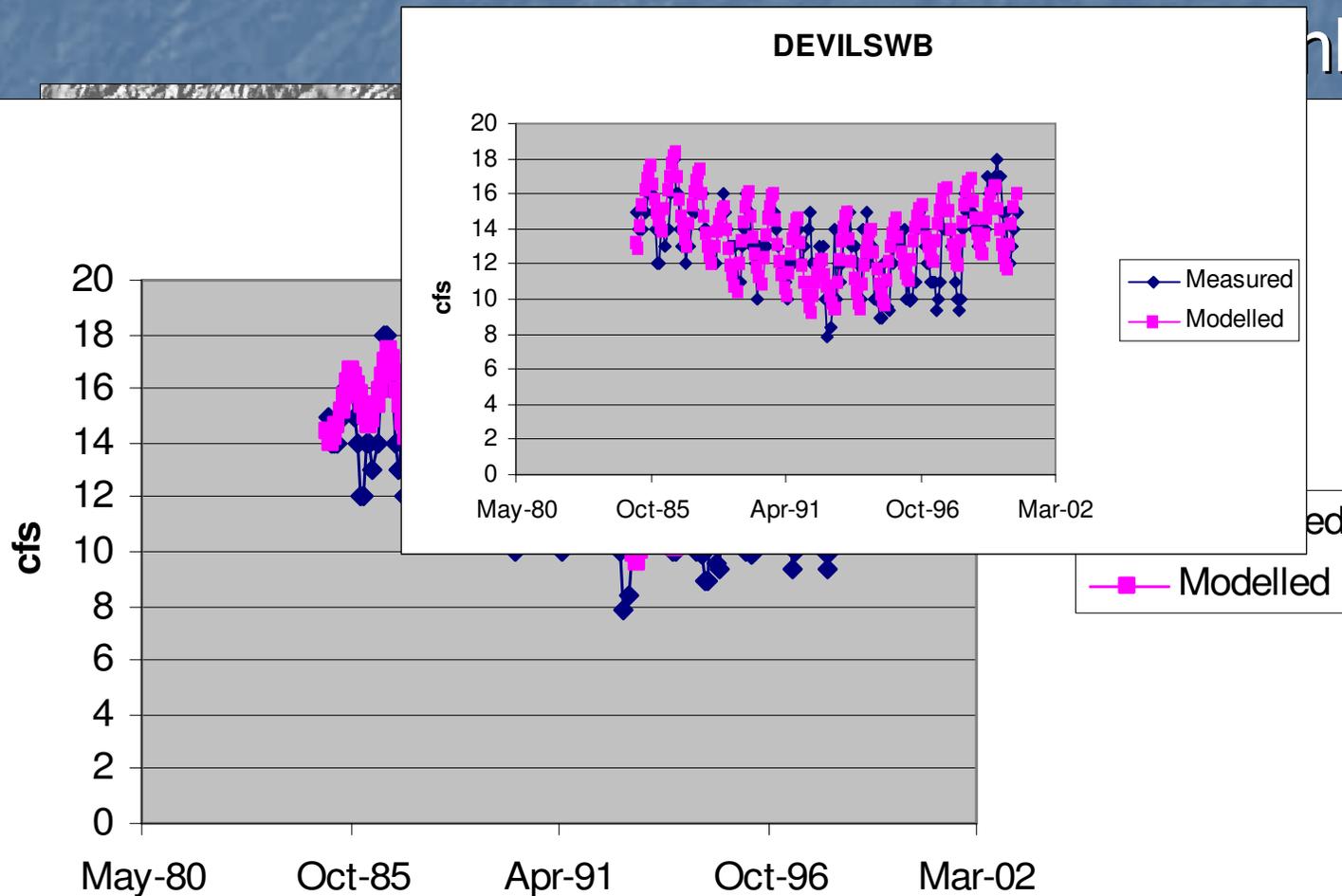
Bul_LSF



New Targets Springs



New Targets Springs

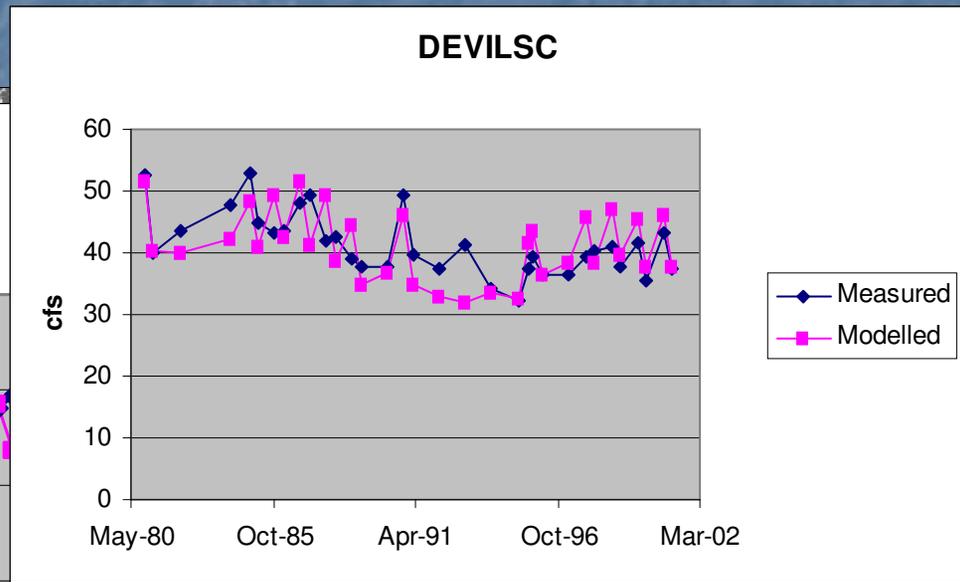
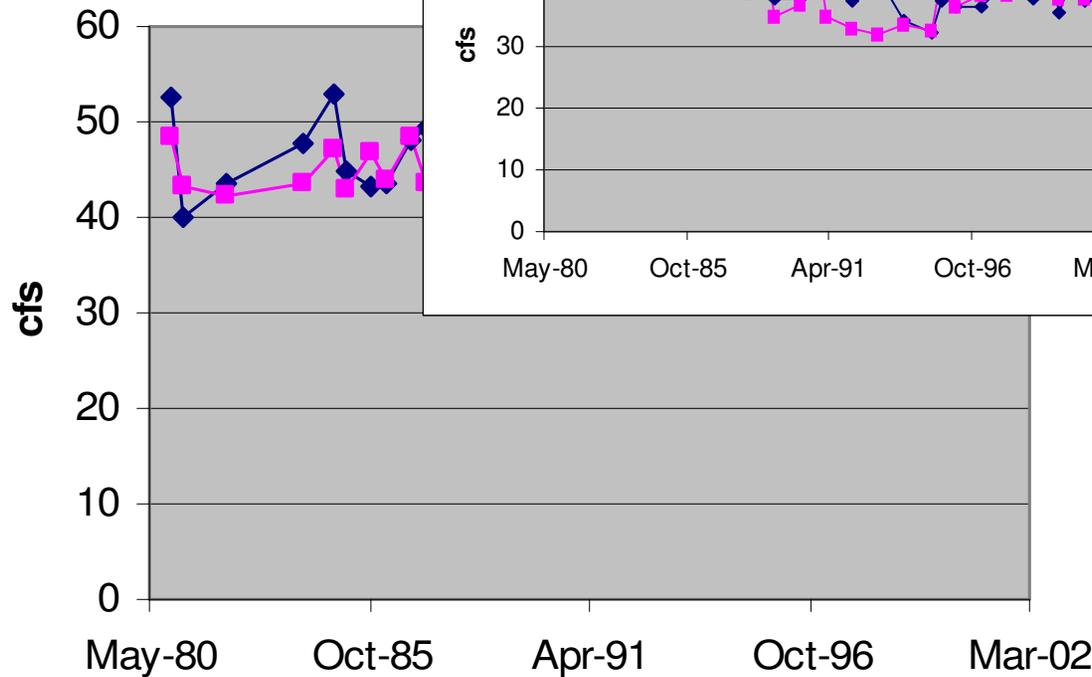


rainbow

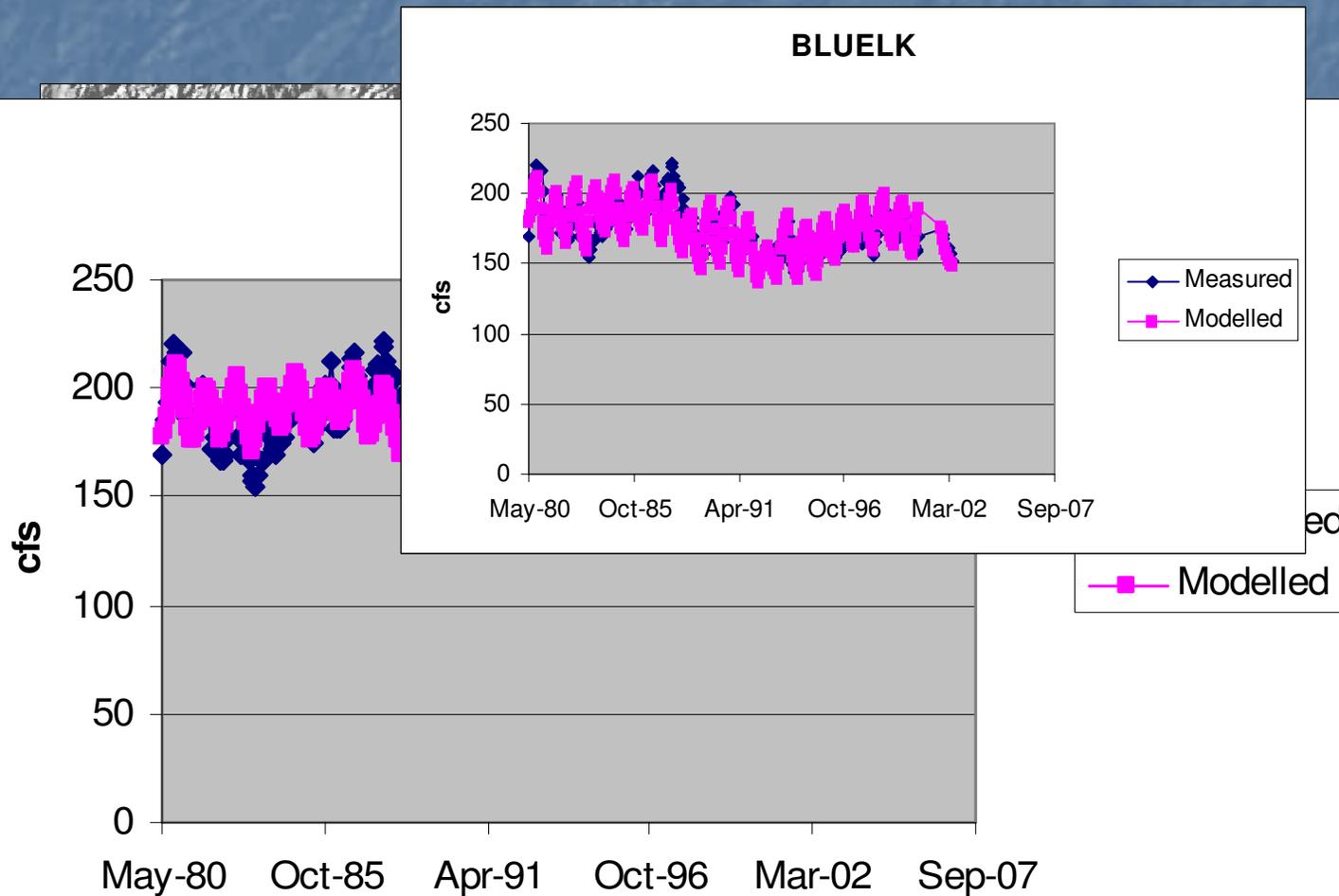
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Modelled

New Targets Springs

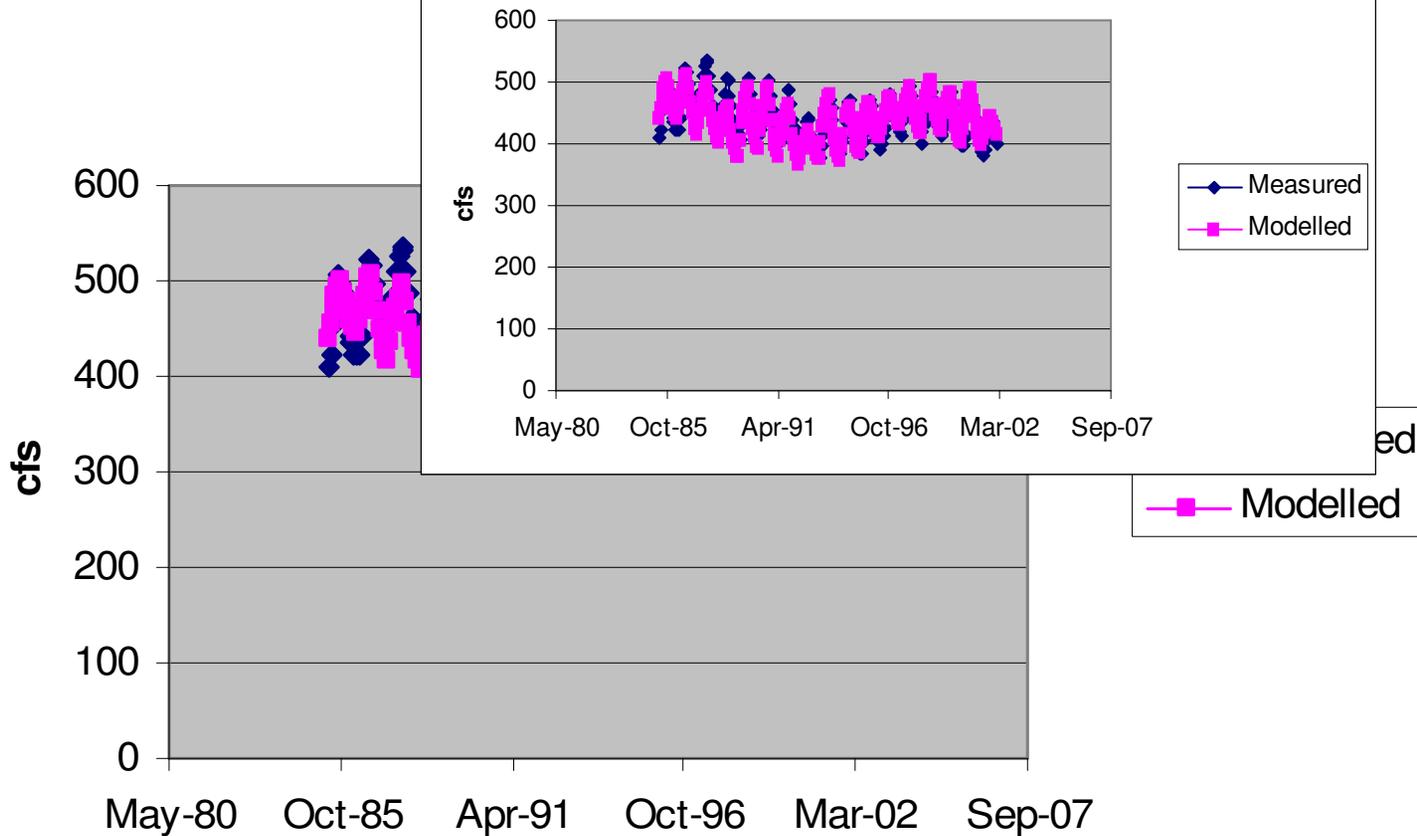


New Targets Springs



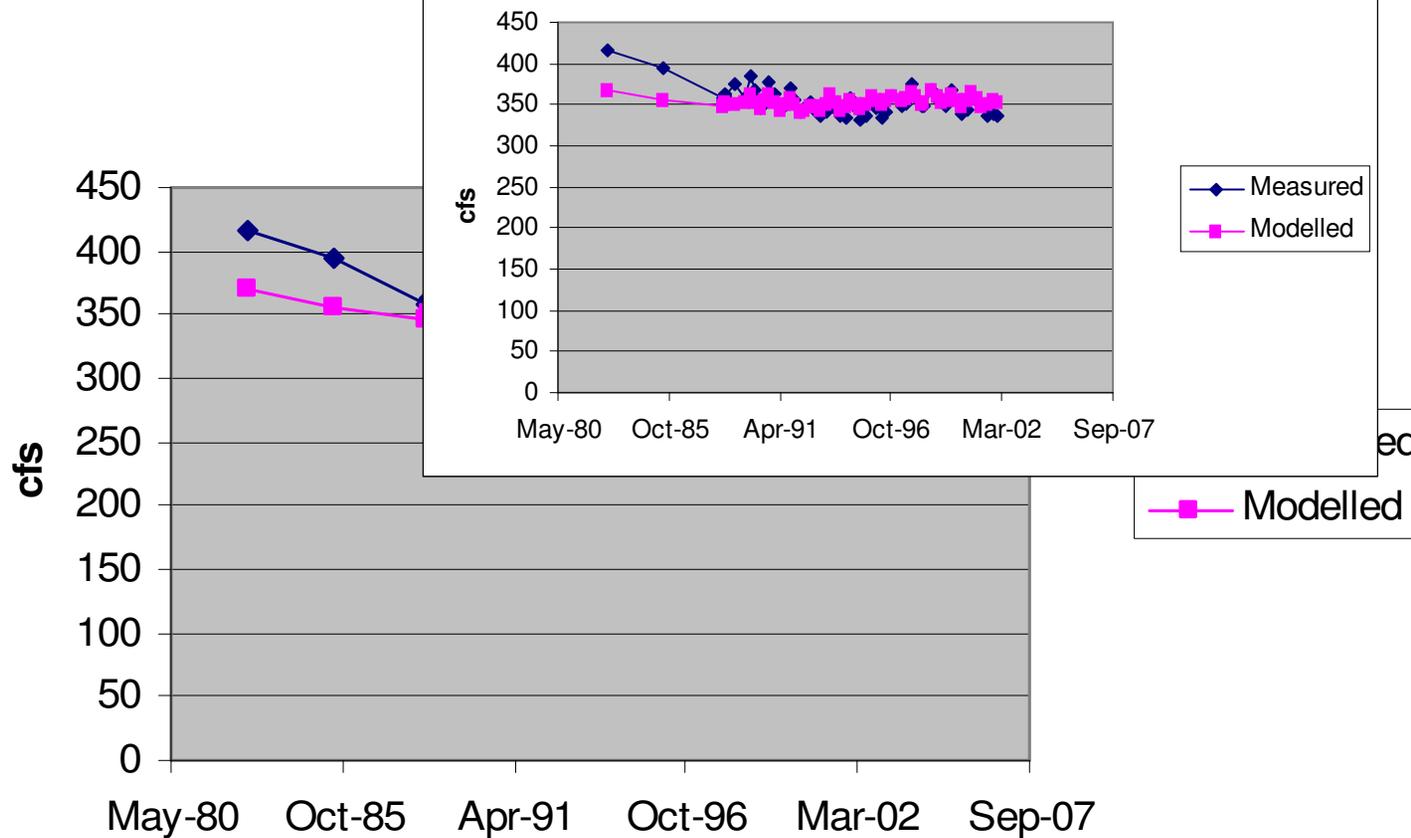
New Targets Springs

CRYSTAL



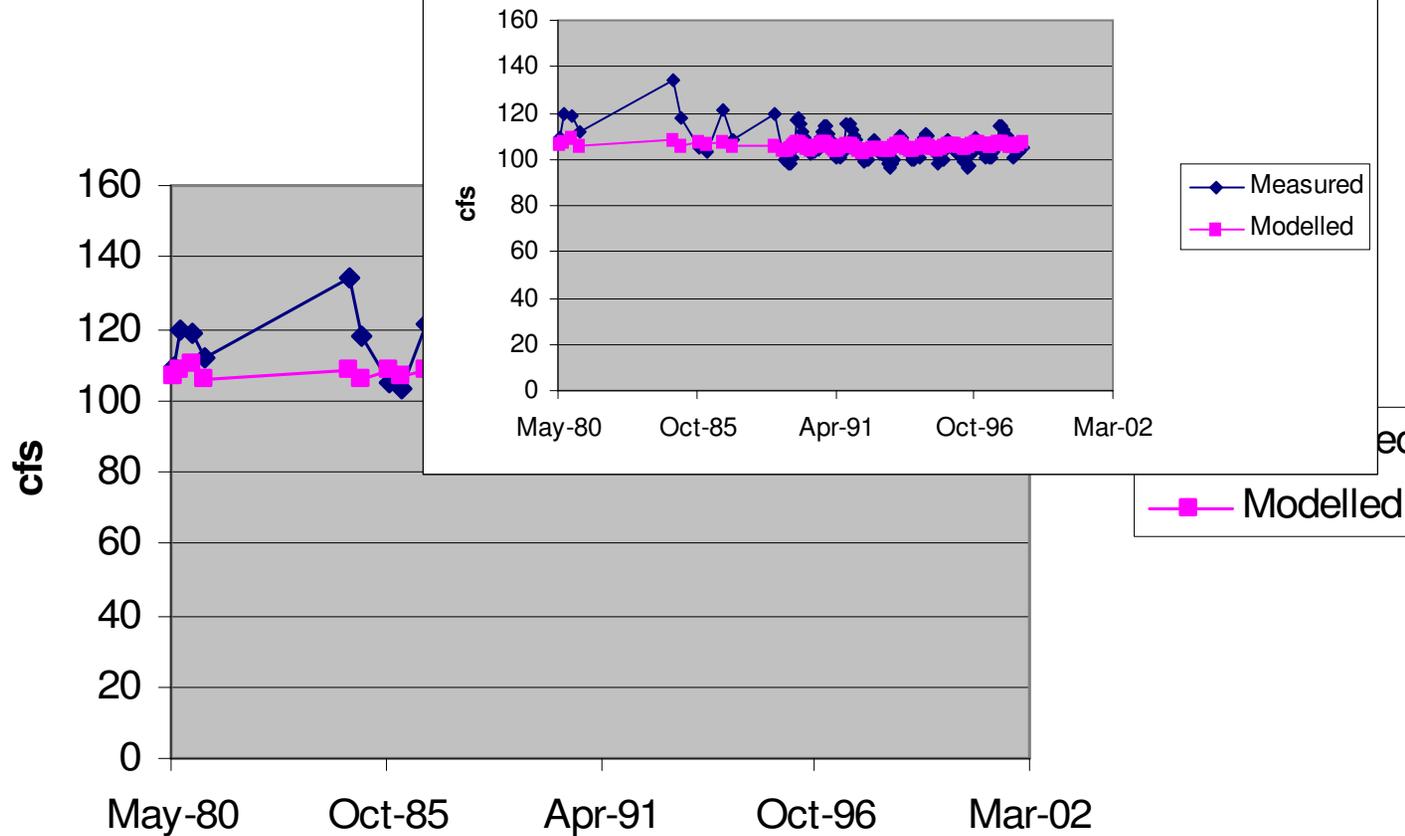
New Targets Springs

CLEARLK



New Targets Springs

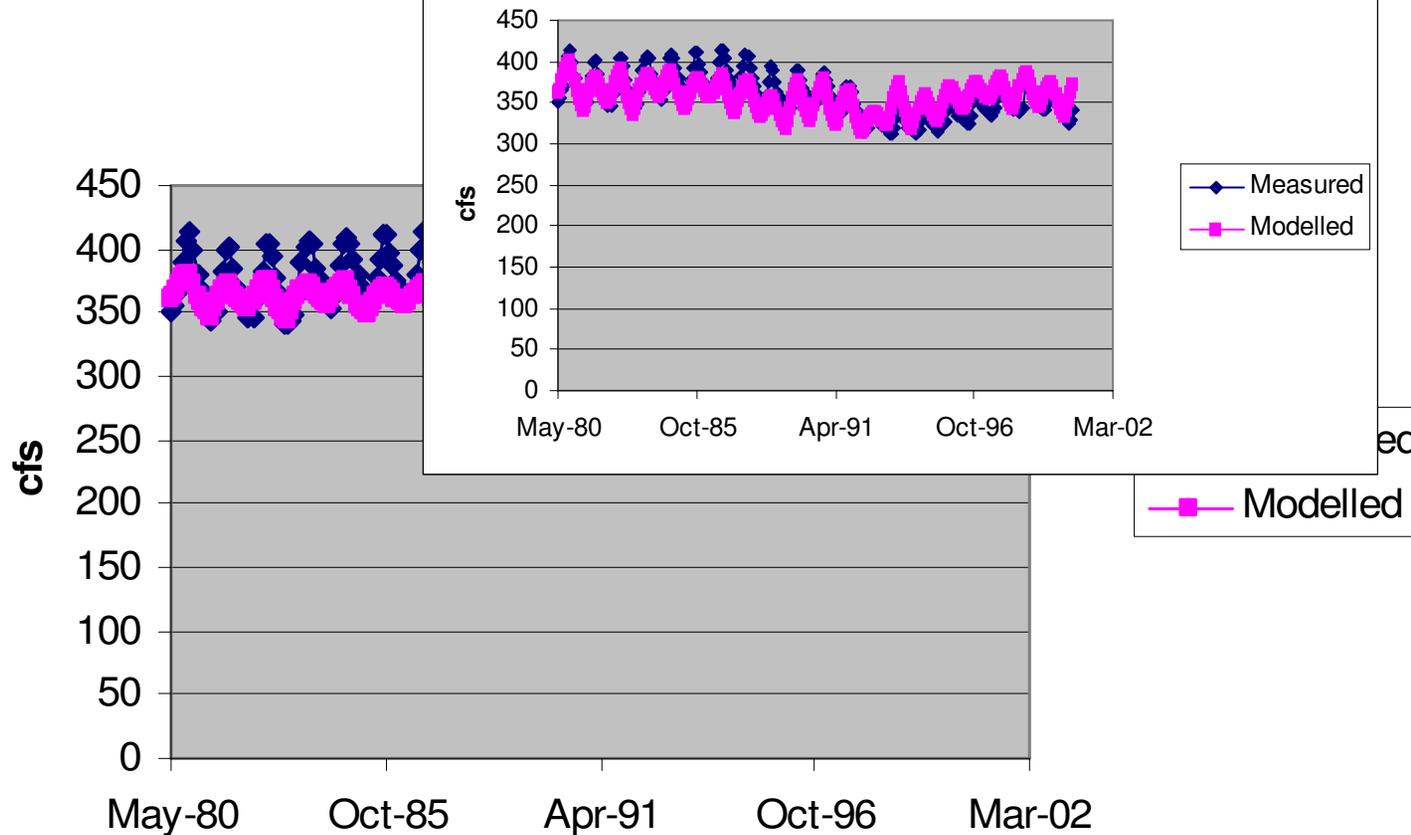
BRIGGS



New Targets Springs

Spring

BOX



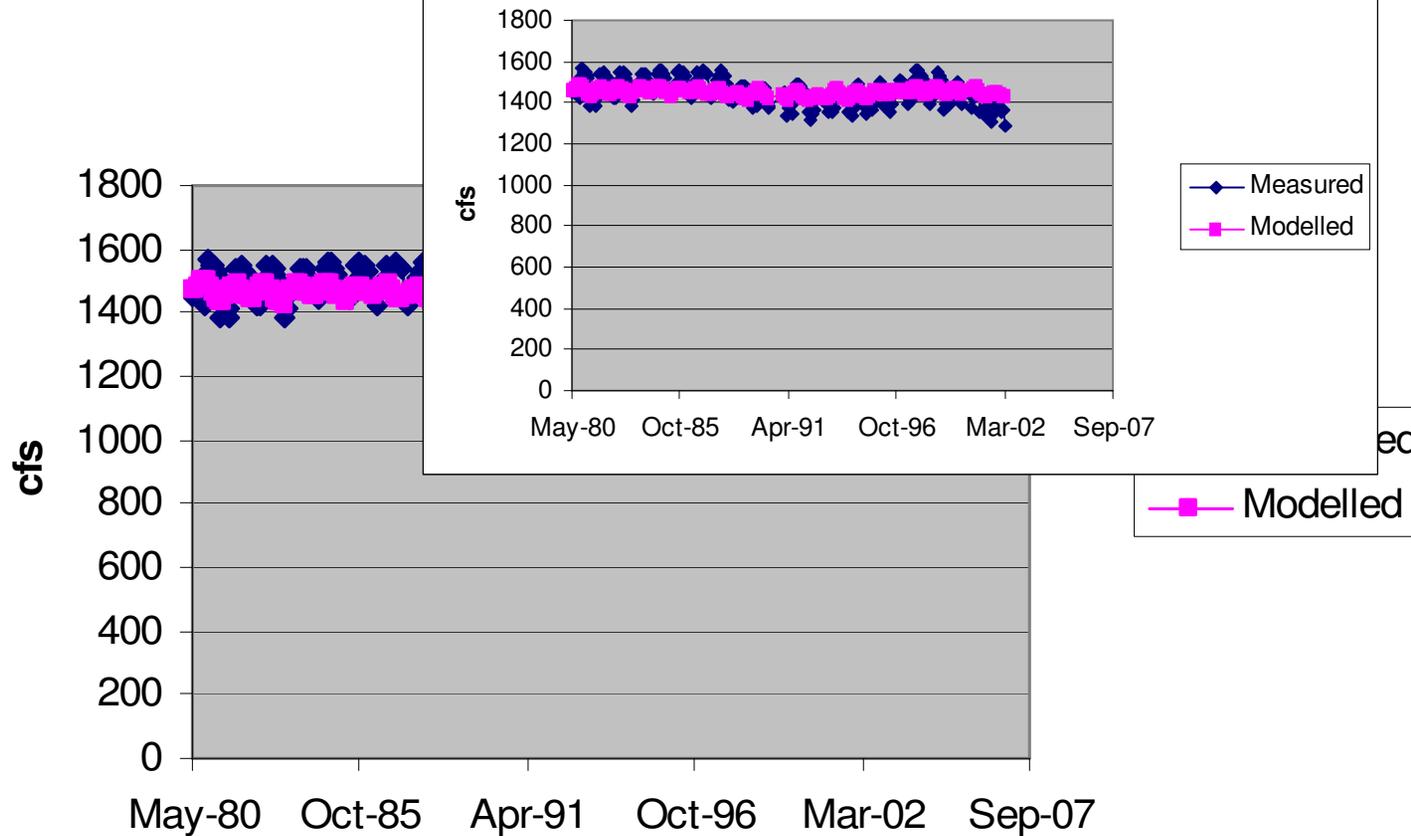
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Modelled

New Targets Springs

Springs

KSPGS

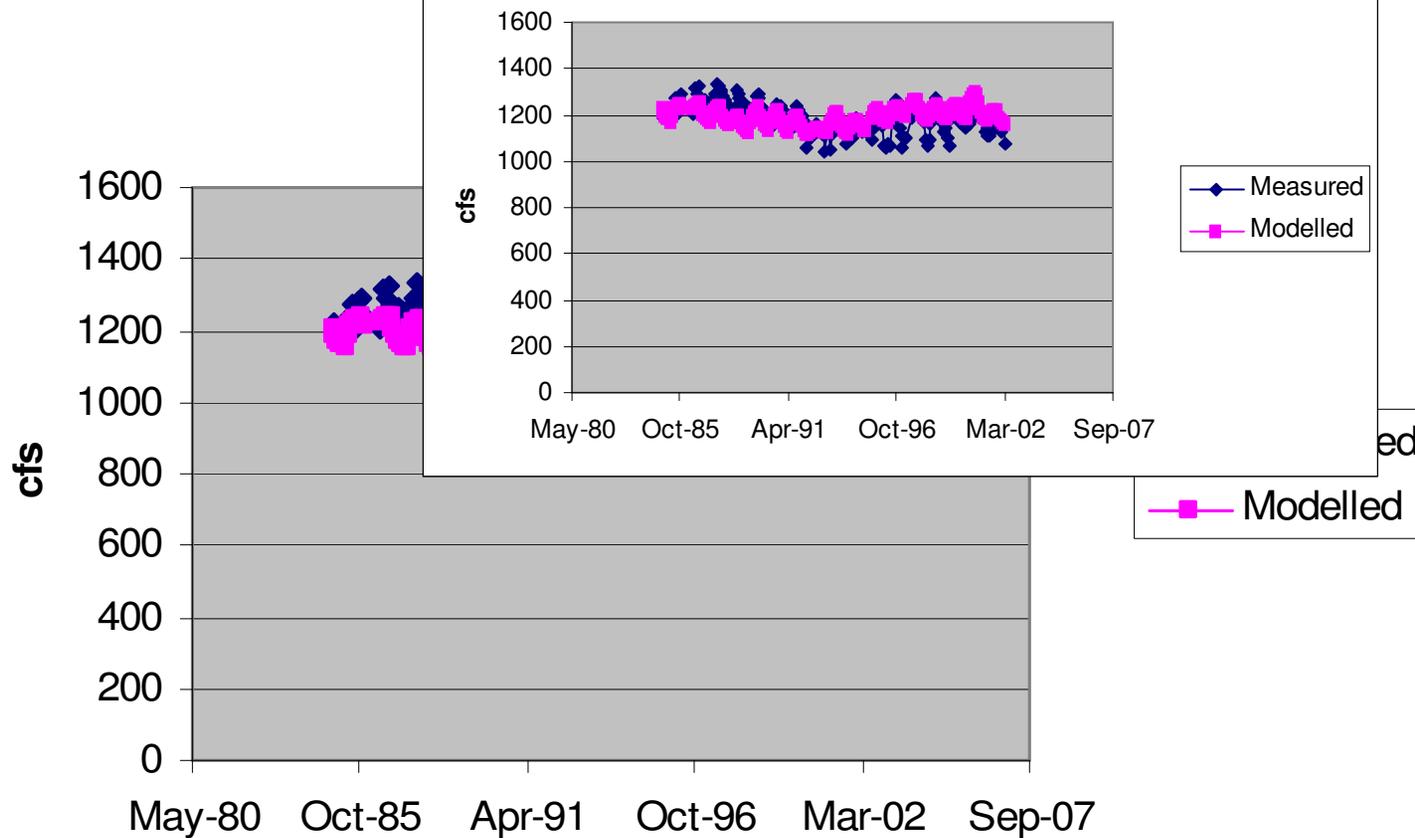


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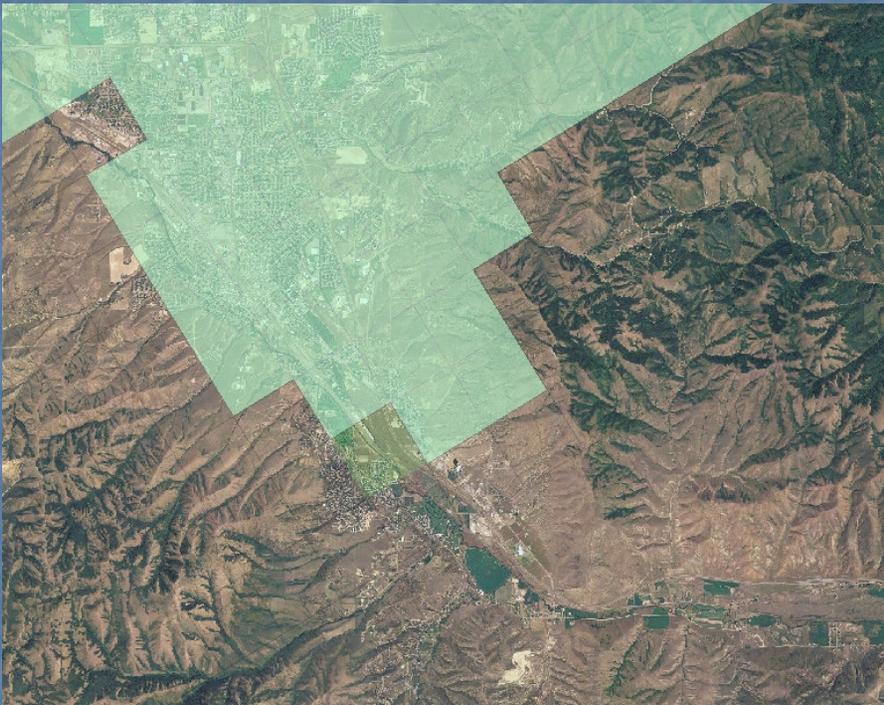
Modelled

New Targets Springs

MALAD



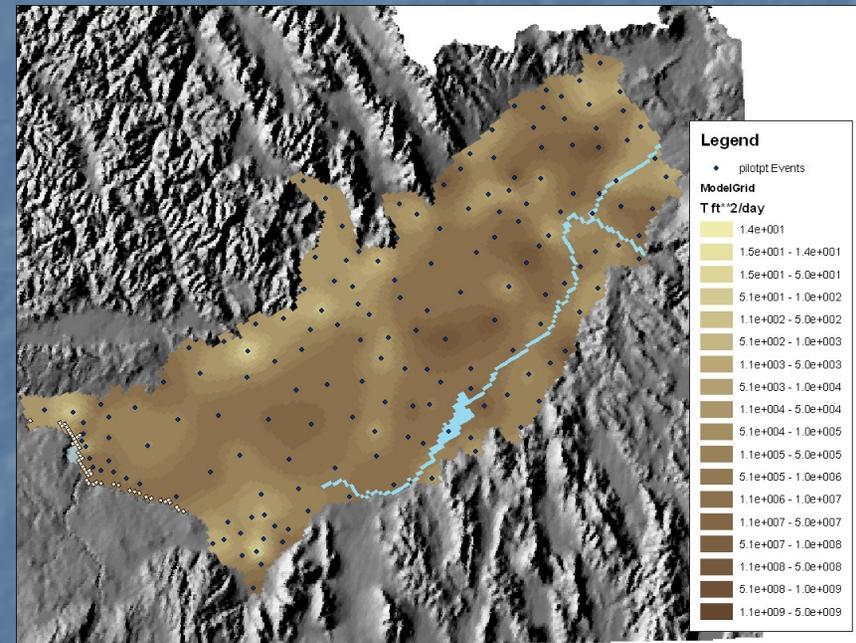
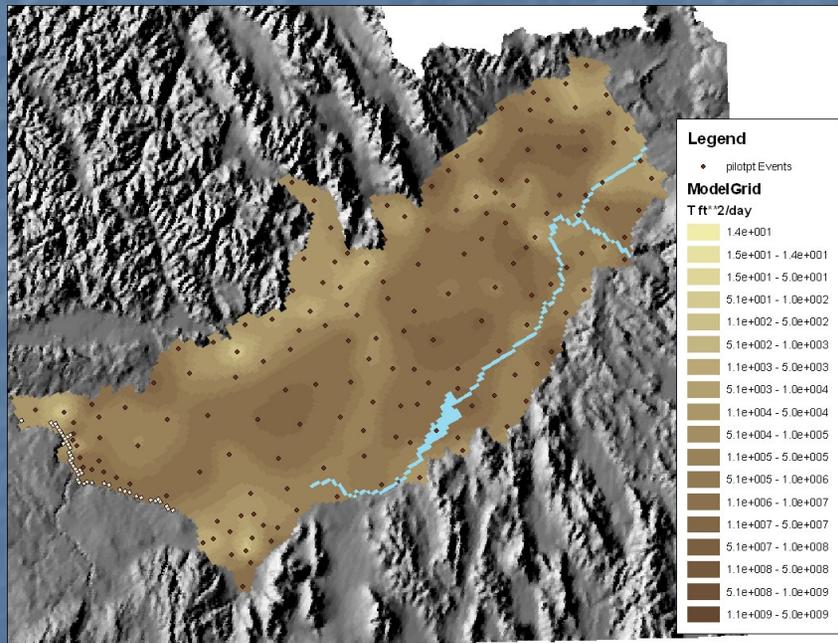
Boundary Adjustment



- Remove cells below rim in Hagerman Valley
- Add Cell in Portneuf Valley

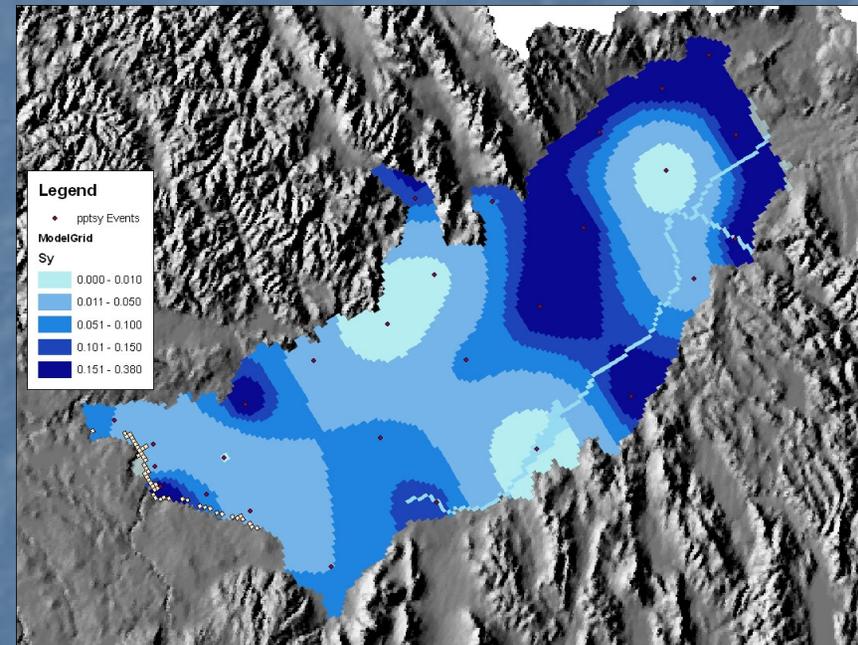
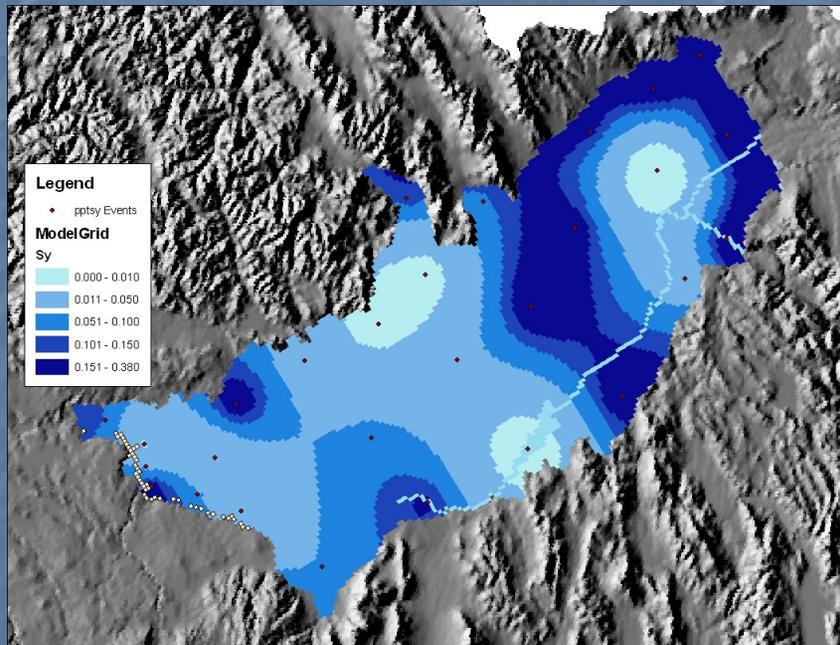
Boundary Adj. Transmissivity

Old Bound



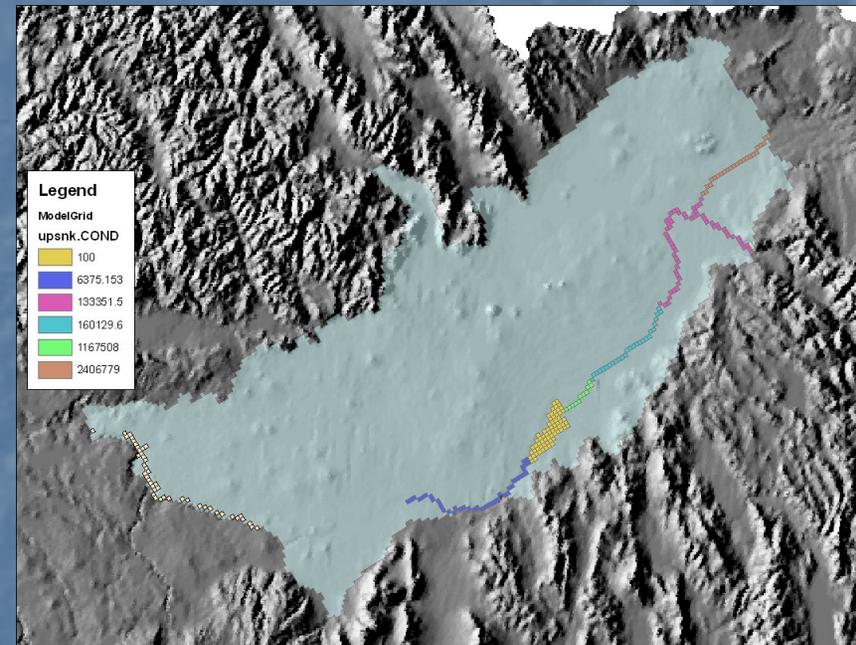
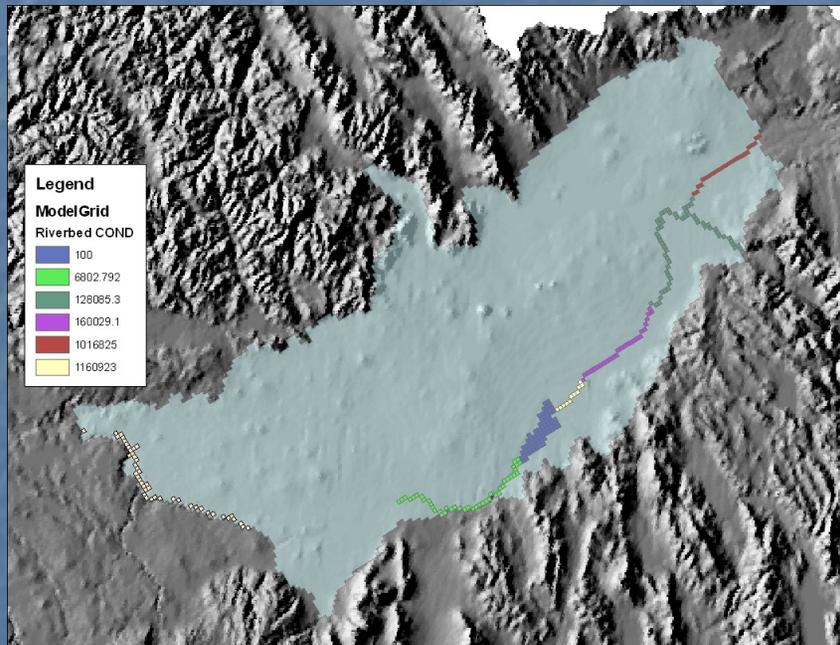
Boundary Adj. Storage

Old Bound



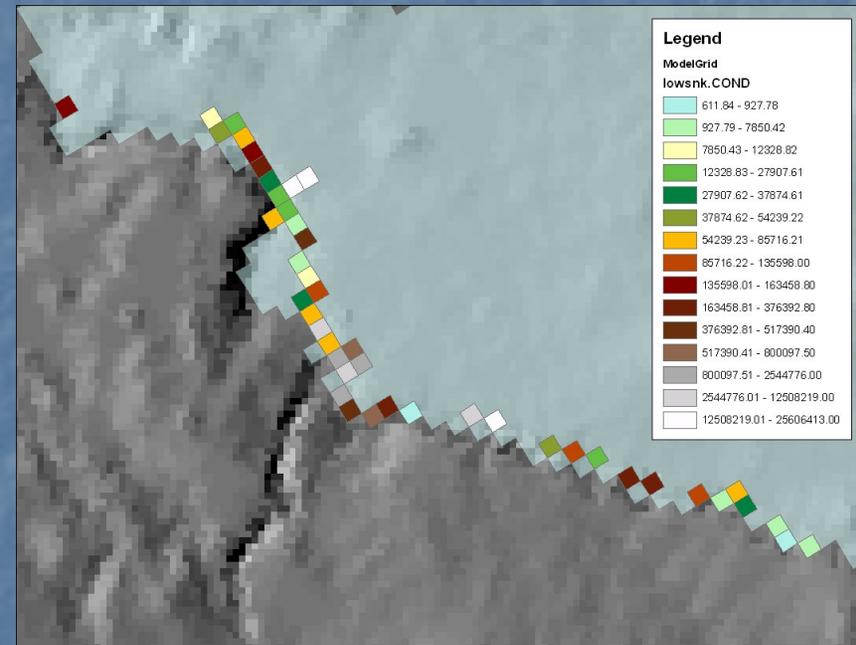
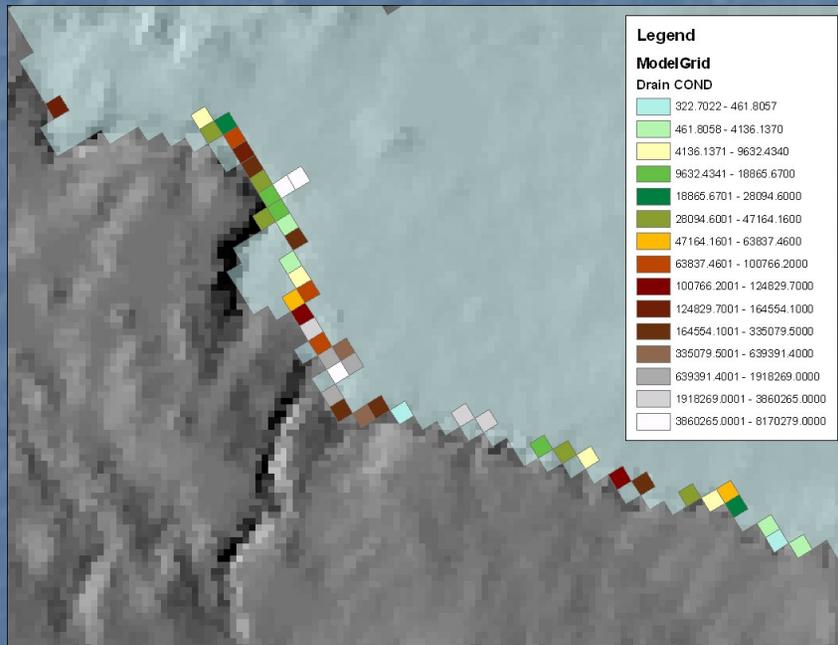
Boundary adj. Riverbed conductance

Old Bound

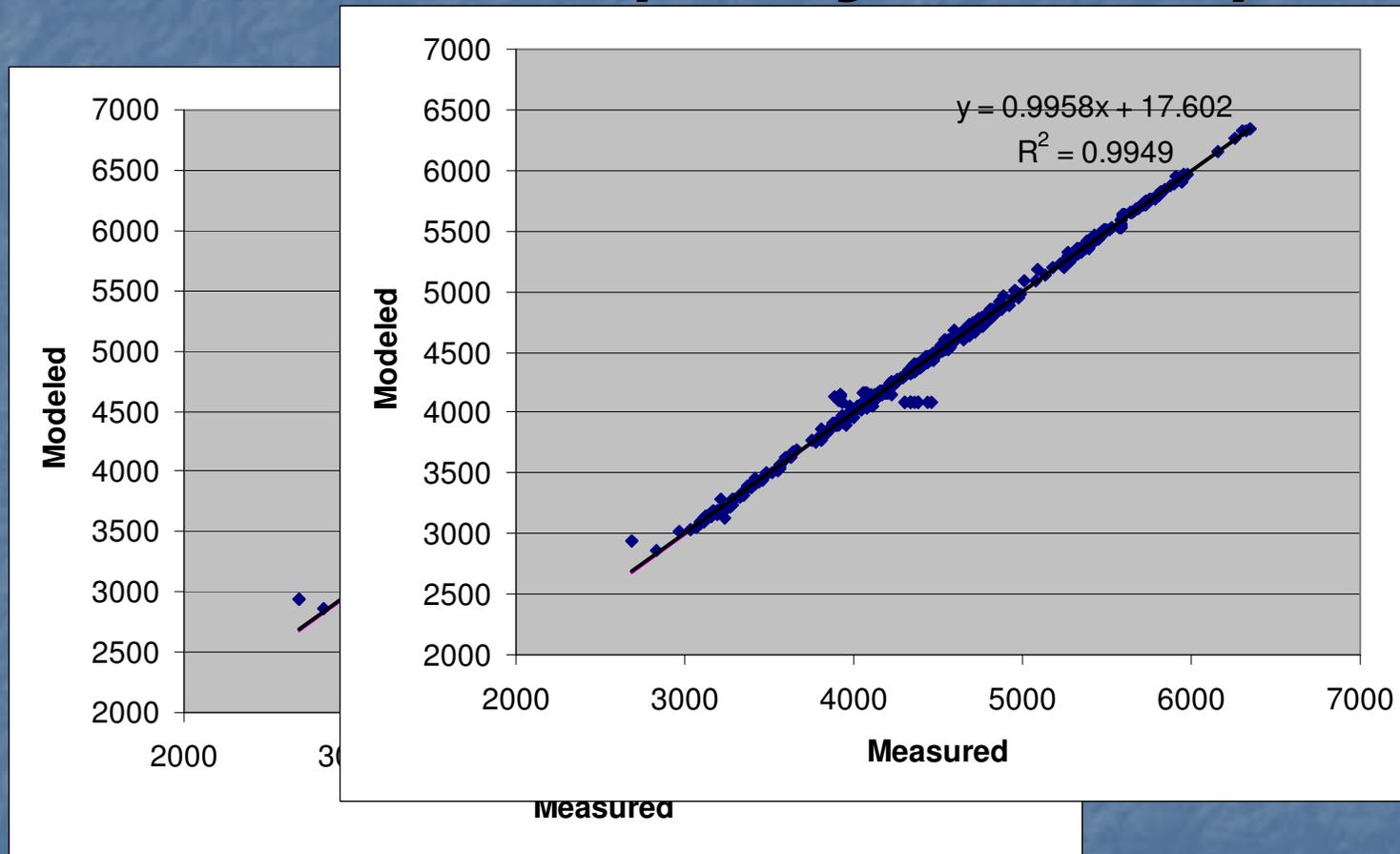


Boundary Adj. Drain Conductance

Old Bound

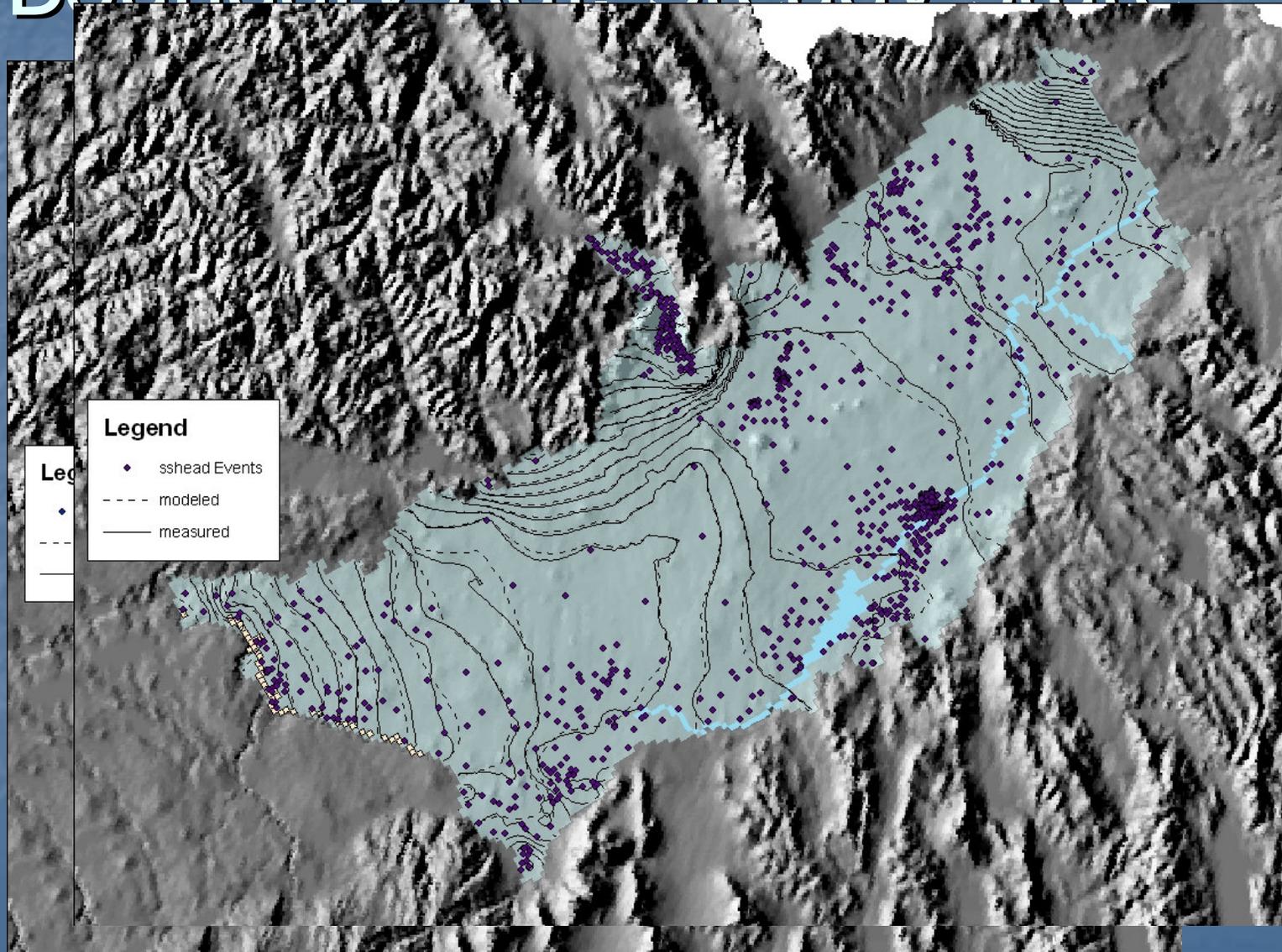


Boundary Adj. Steady state

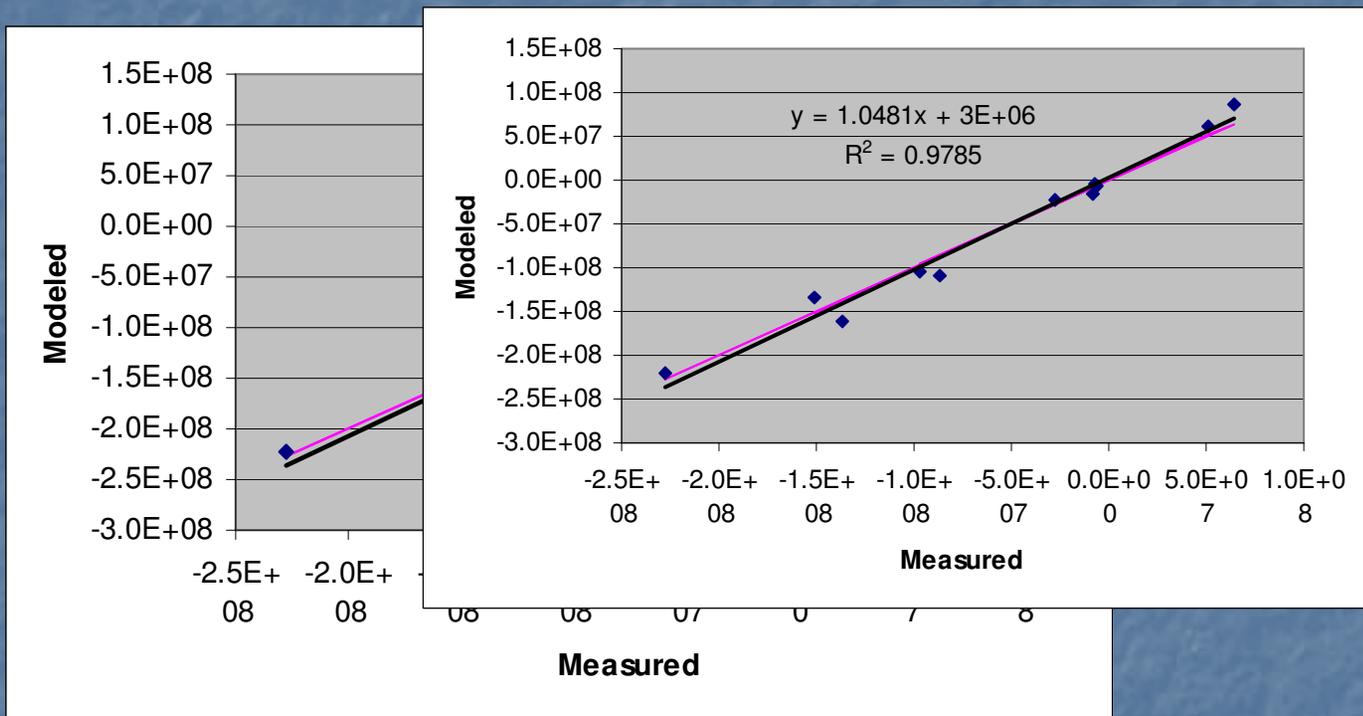


line is 45°
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t match
 $x + 0$
 $= 1$

Boundary Adj. Steady state



Boundary Adj. Steady state



and loss

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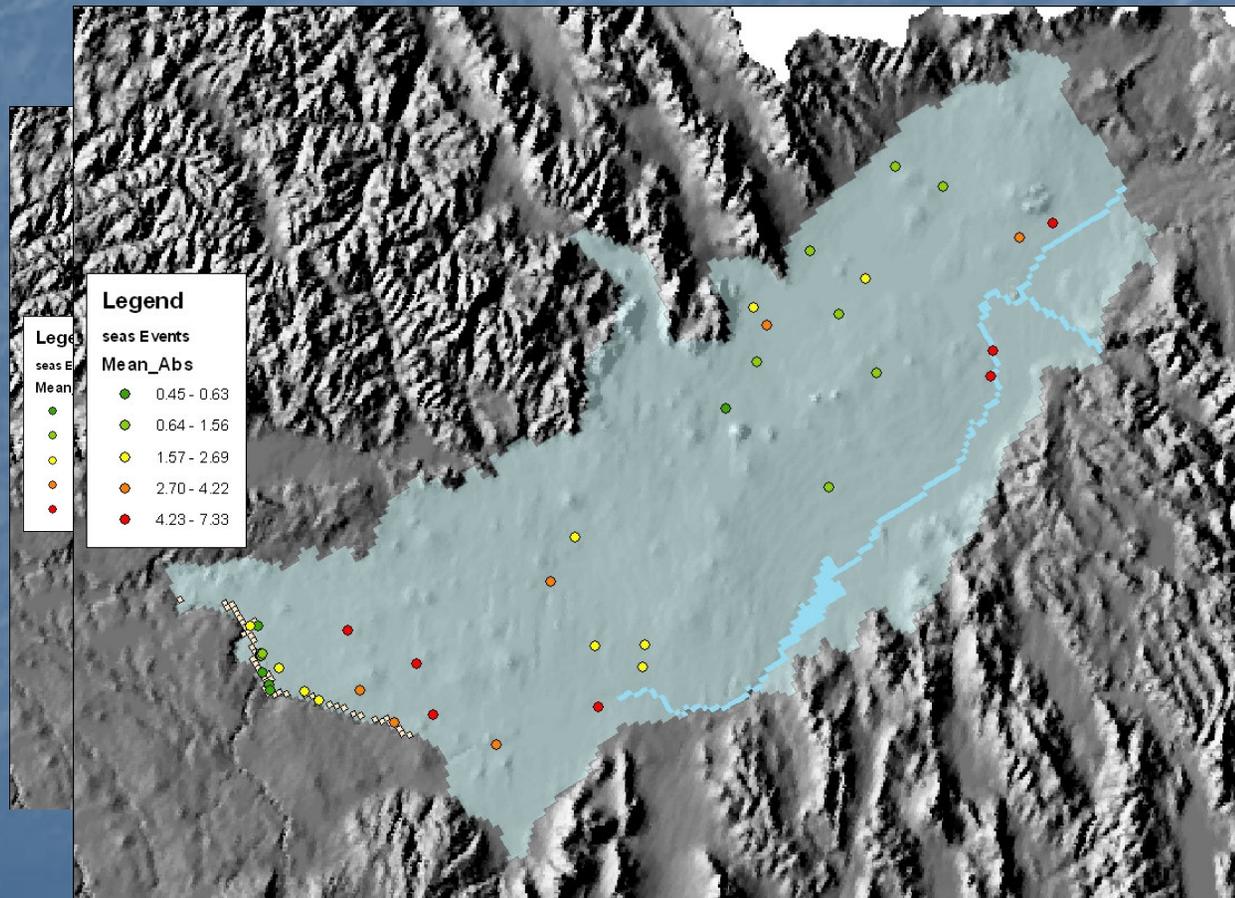
ick line is 45°

this were a
fect match

$$Y=1x + 0$$

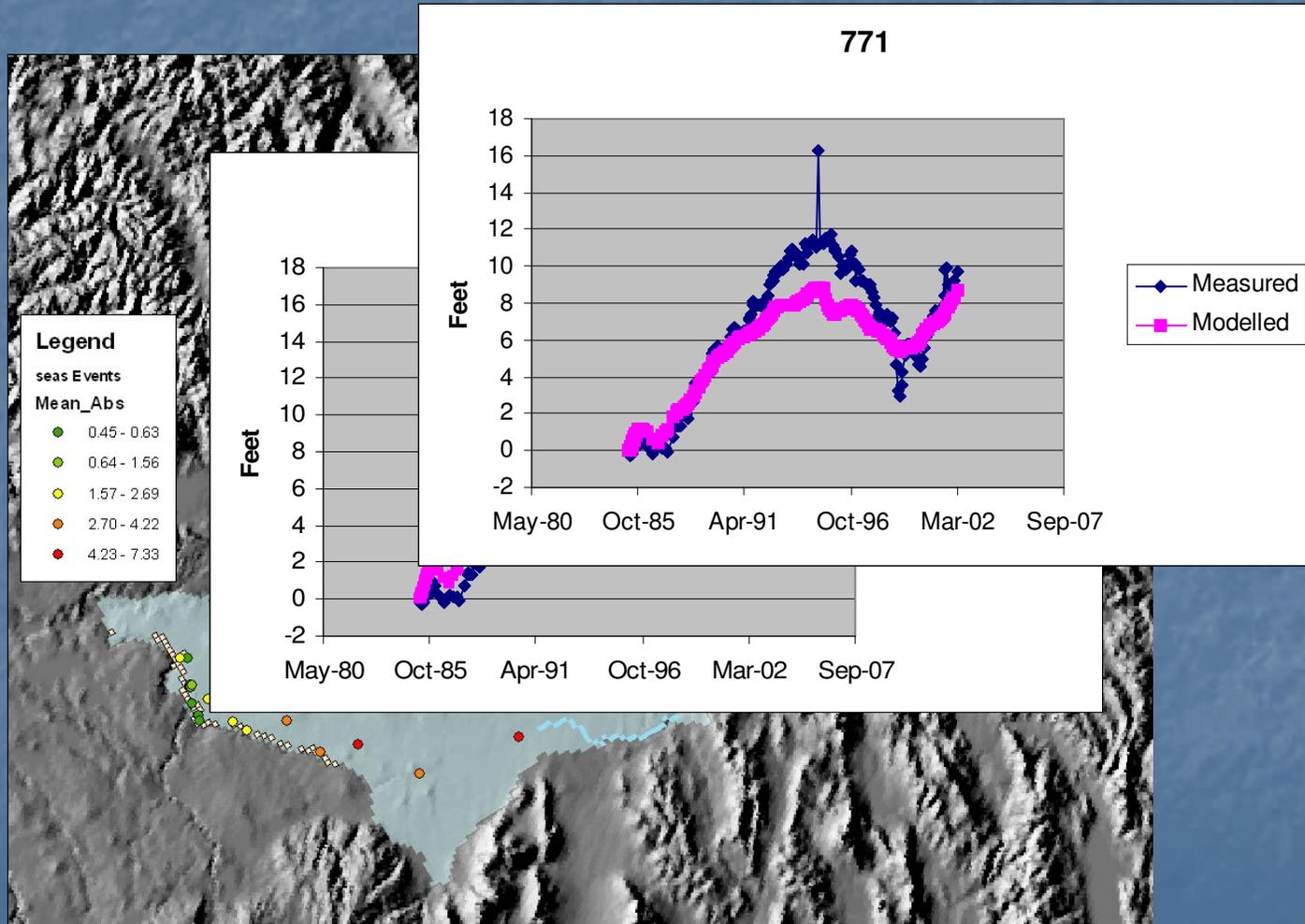
$$R^2 = 1$$

Boundary Adj. Seasonal data set

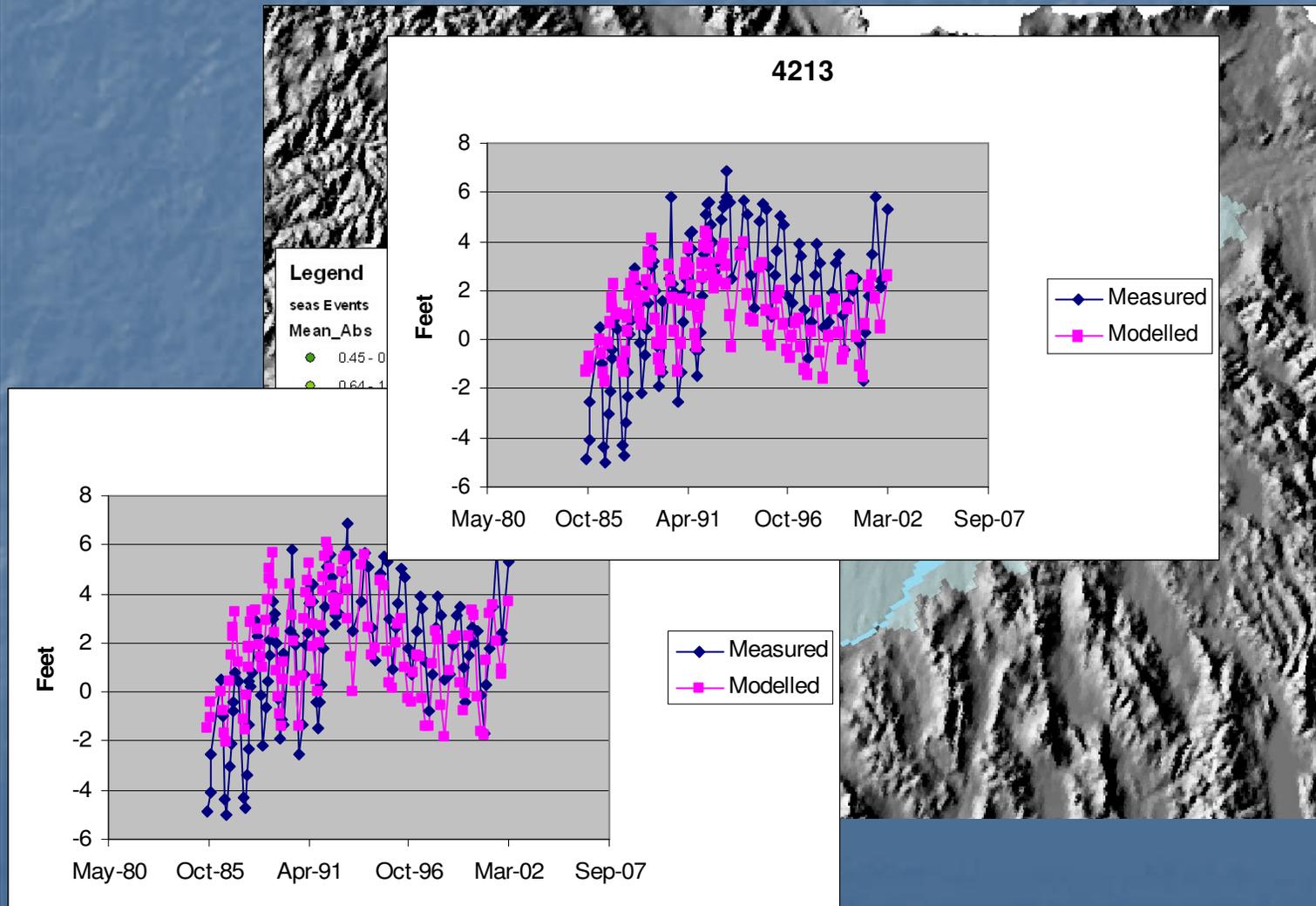


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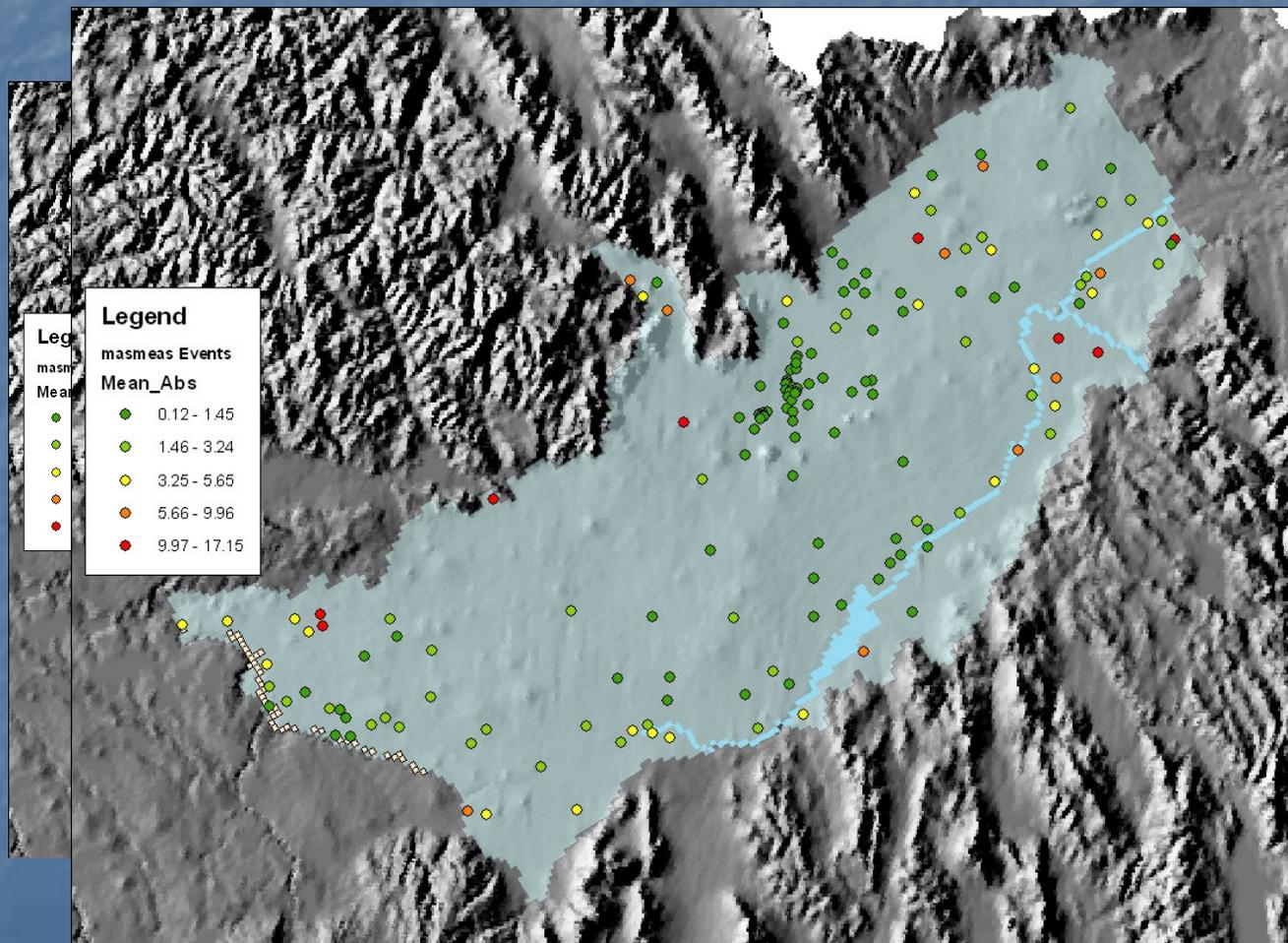
Boundary Adj. Seasonal data set



Boundary Adj. Seasonal data set

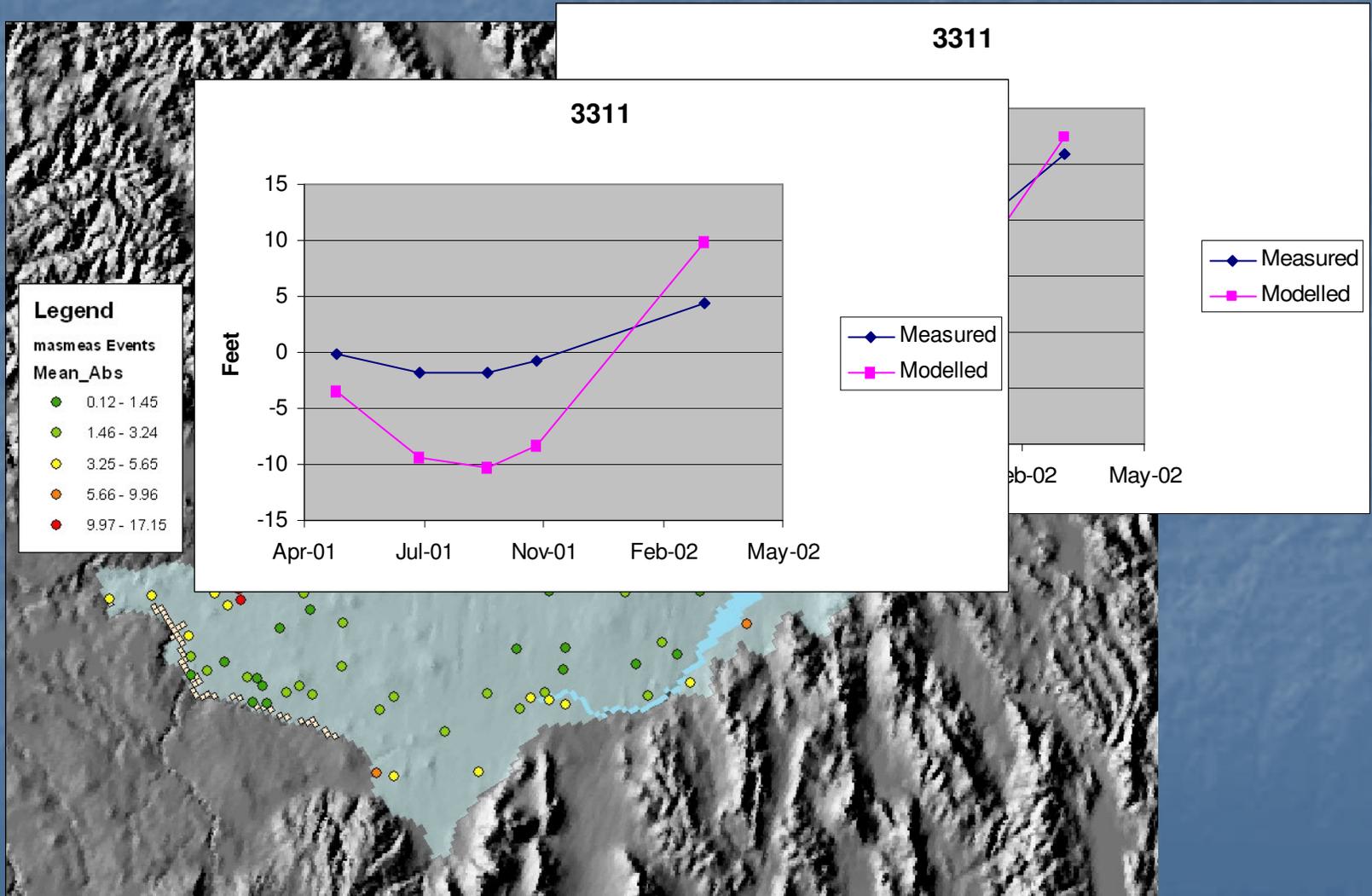


Boundary Adj. Mass measurement

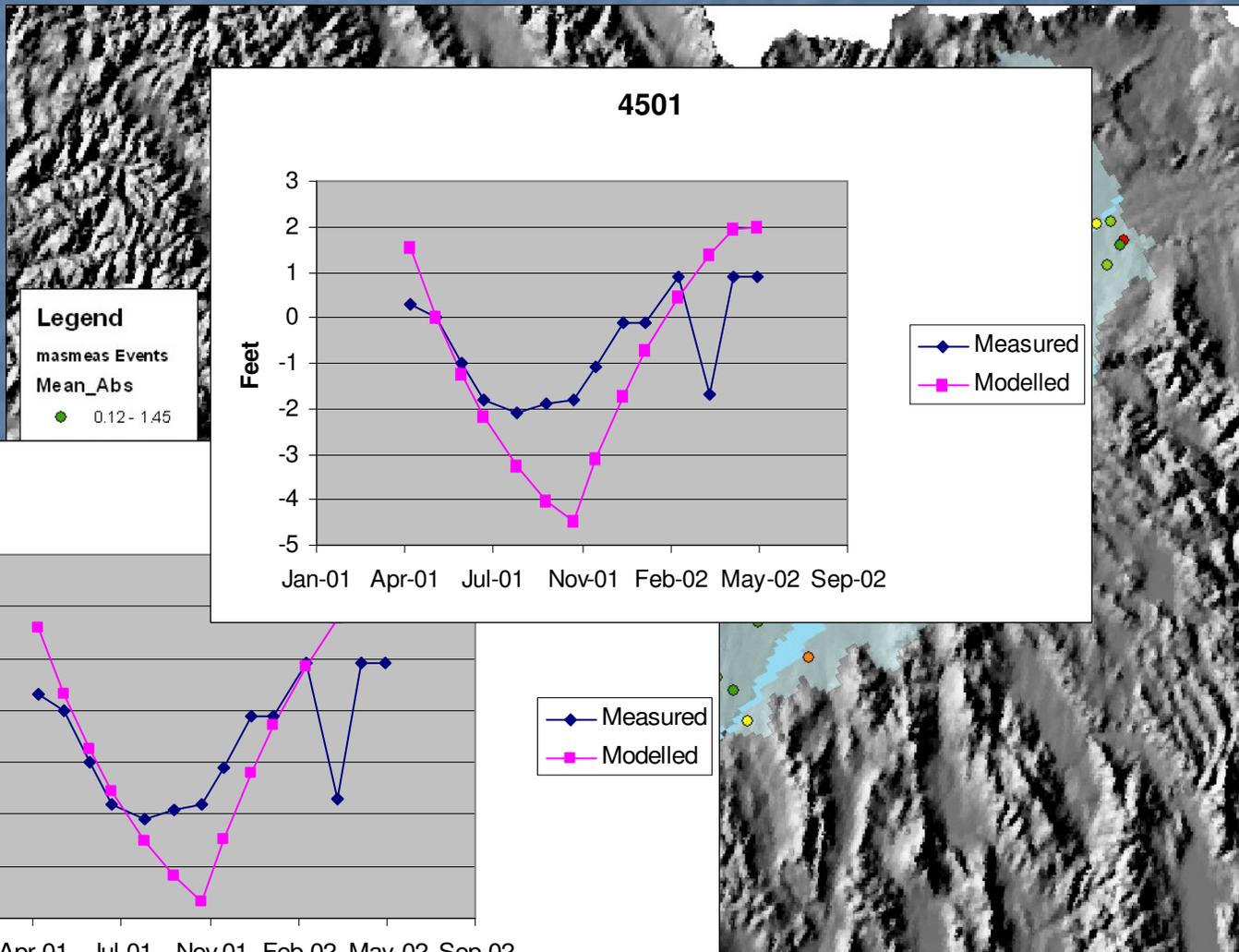


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2001 -5/8/2002

Boundary Adj. Mass measurement

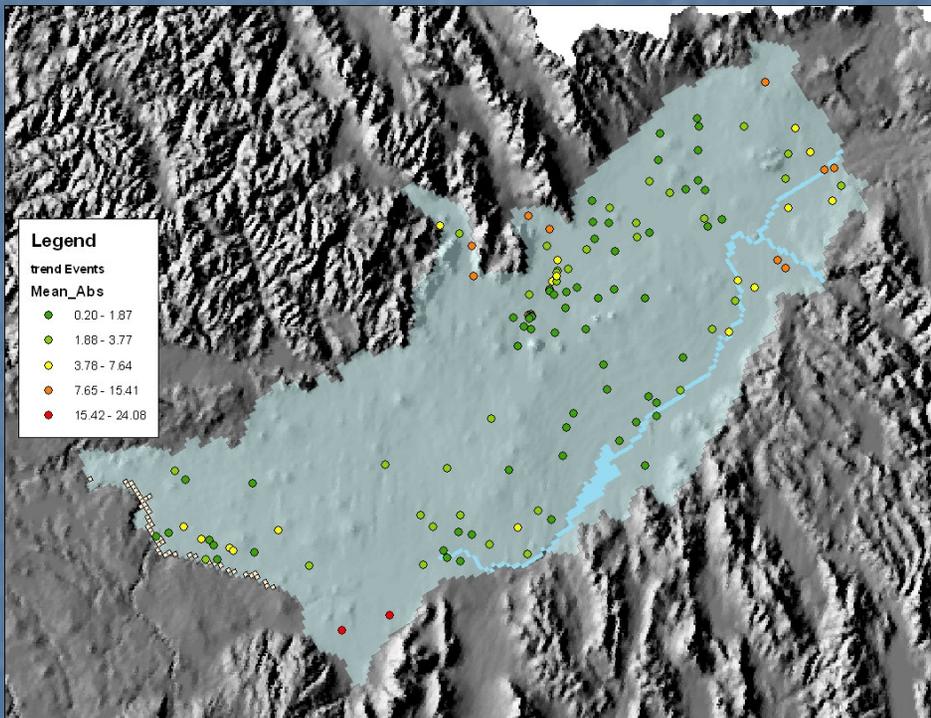


Boundary Adj. Mass measurement

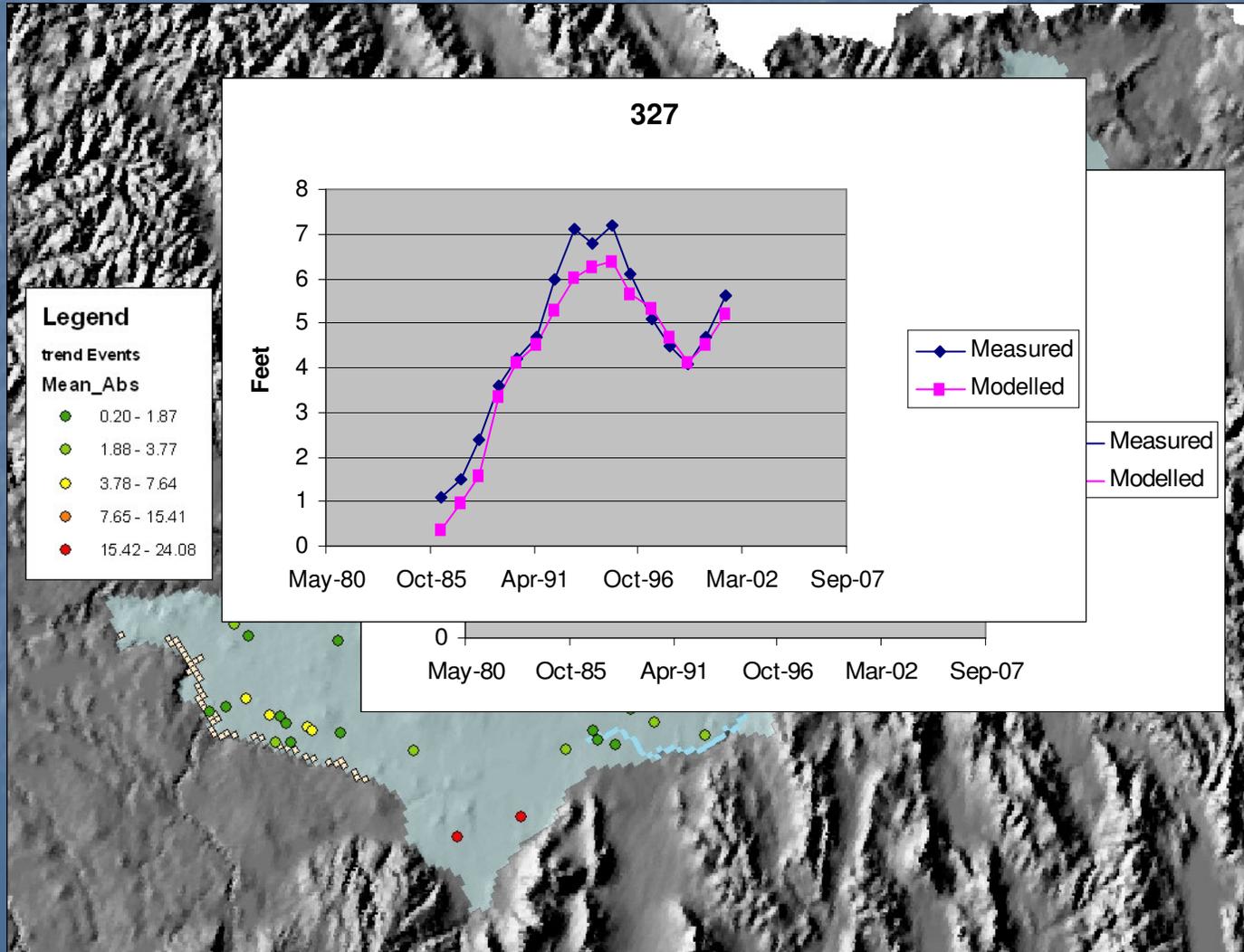


Boundary Adj. Trend

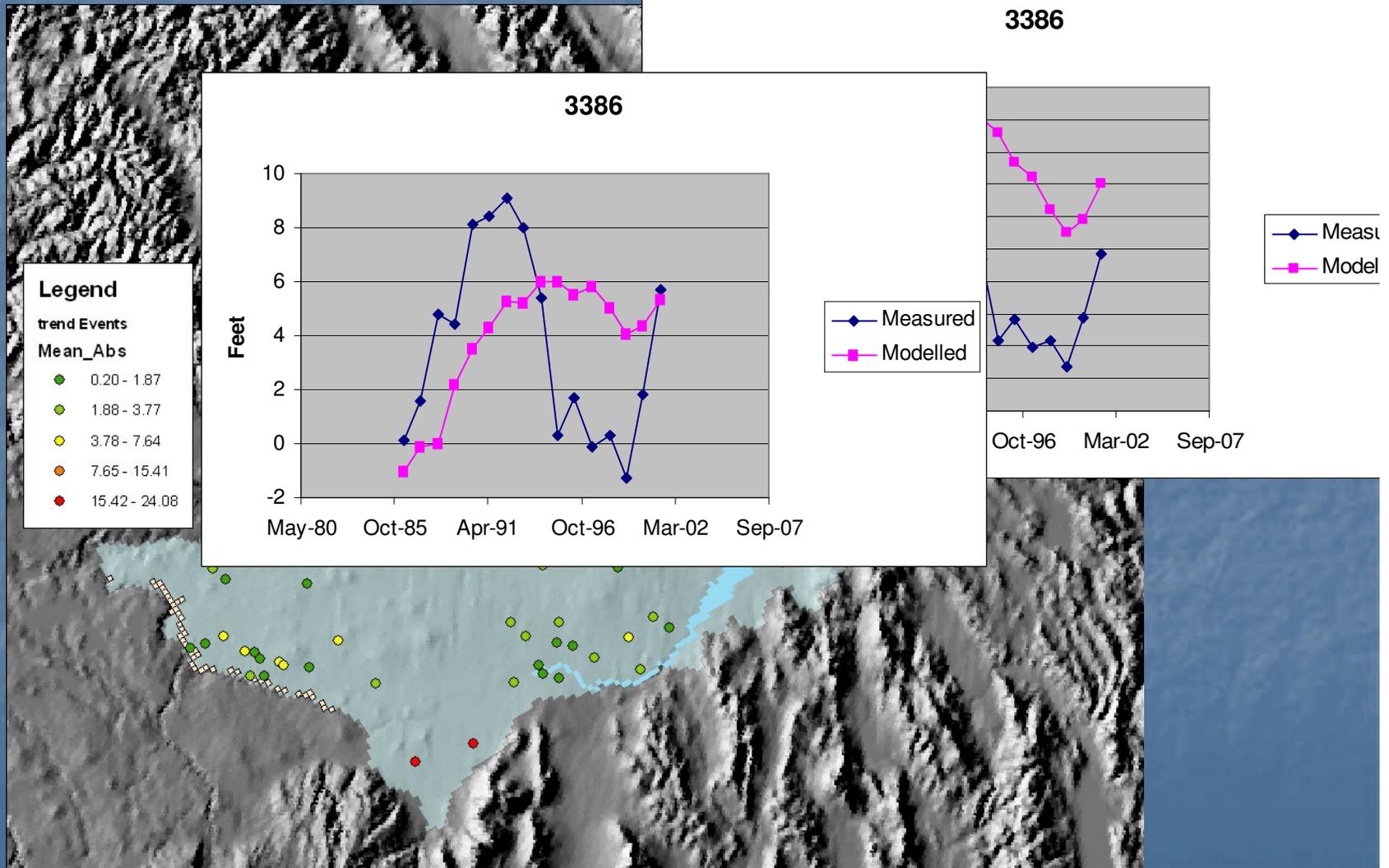
- Annual observations in wells



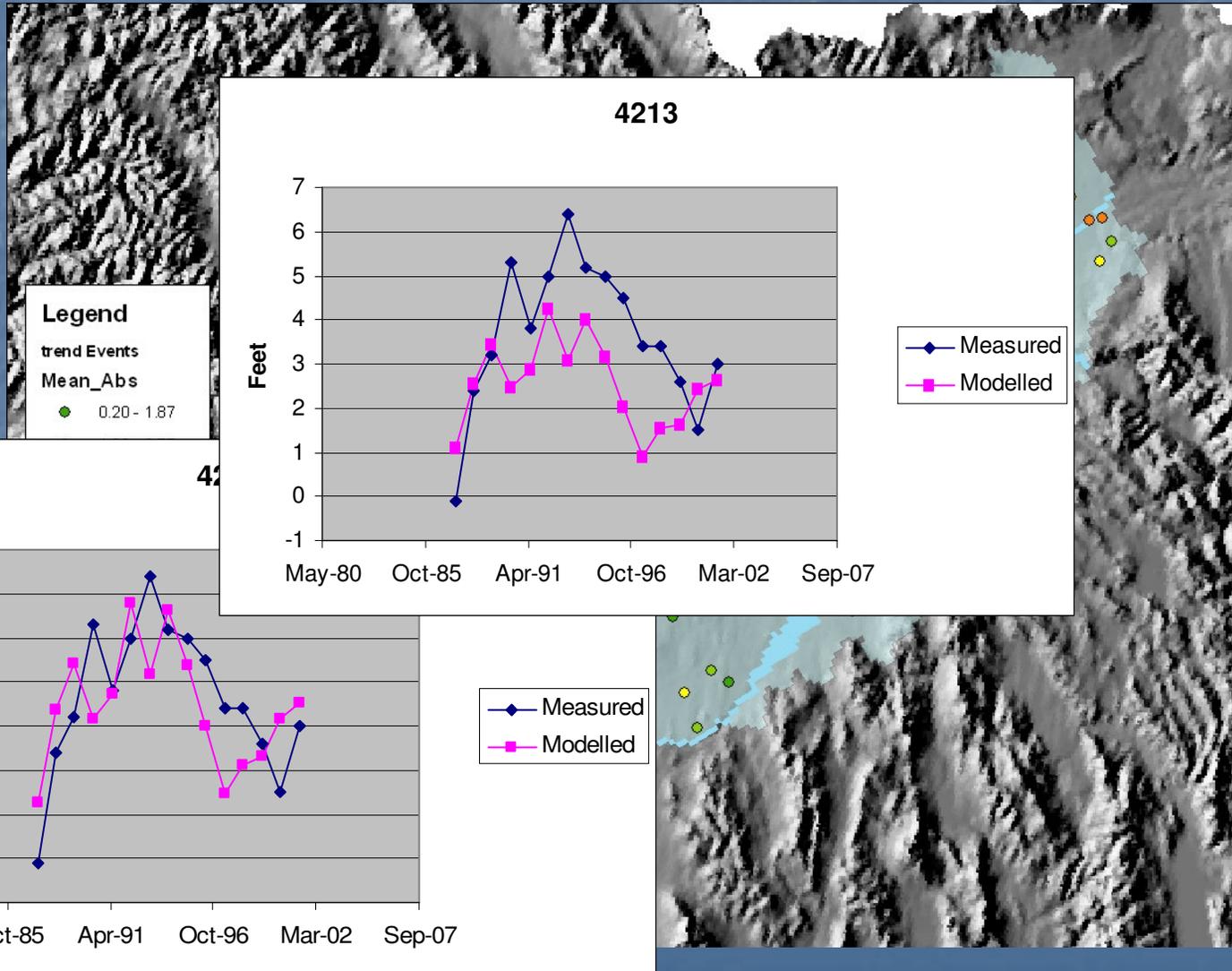
Boundary Adj. Trend



Boundary Adj. Trend

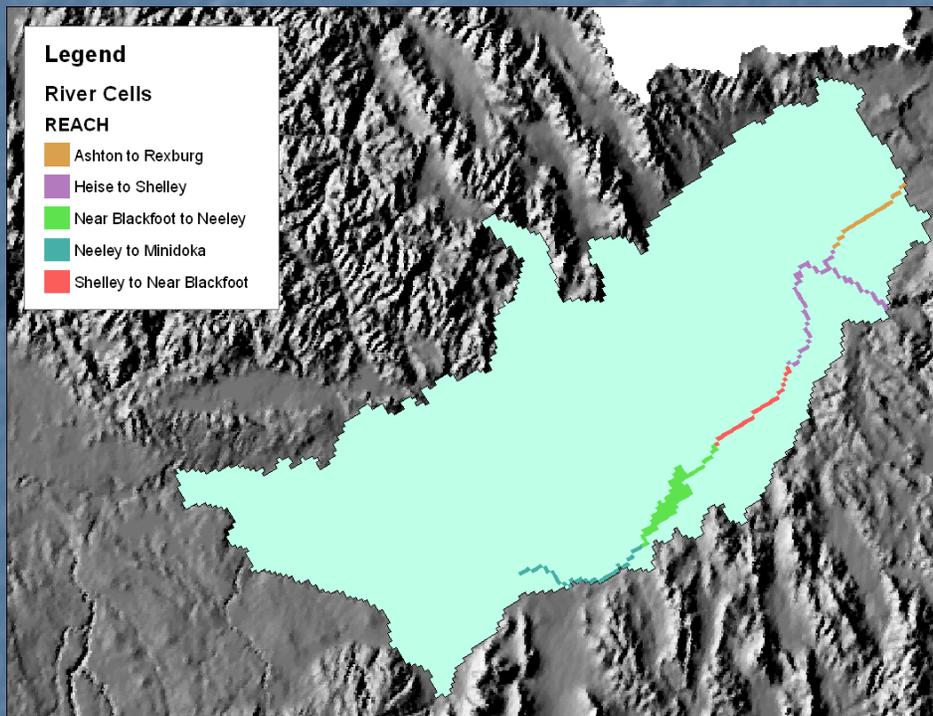


Boundary Adj. Trend

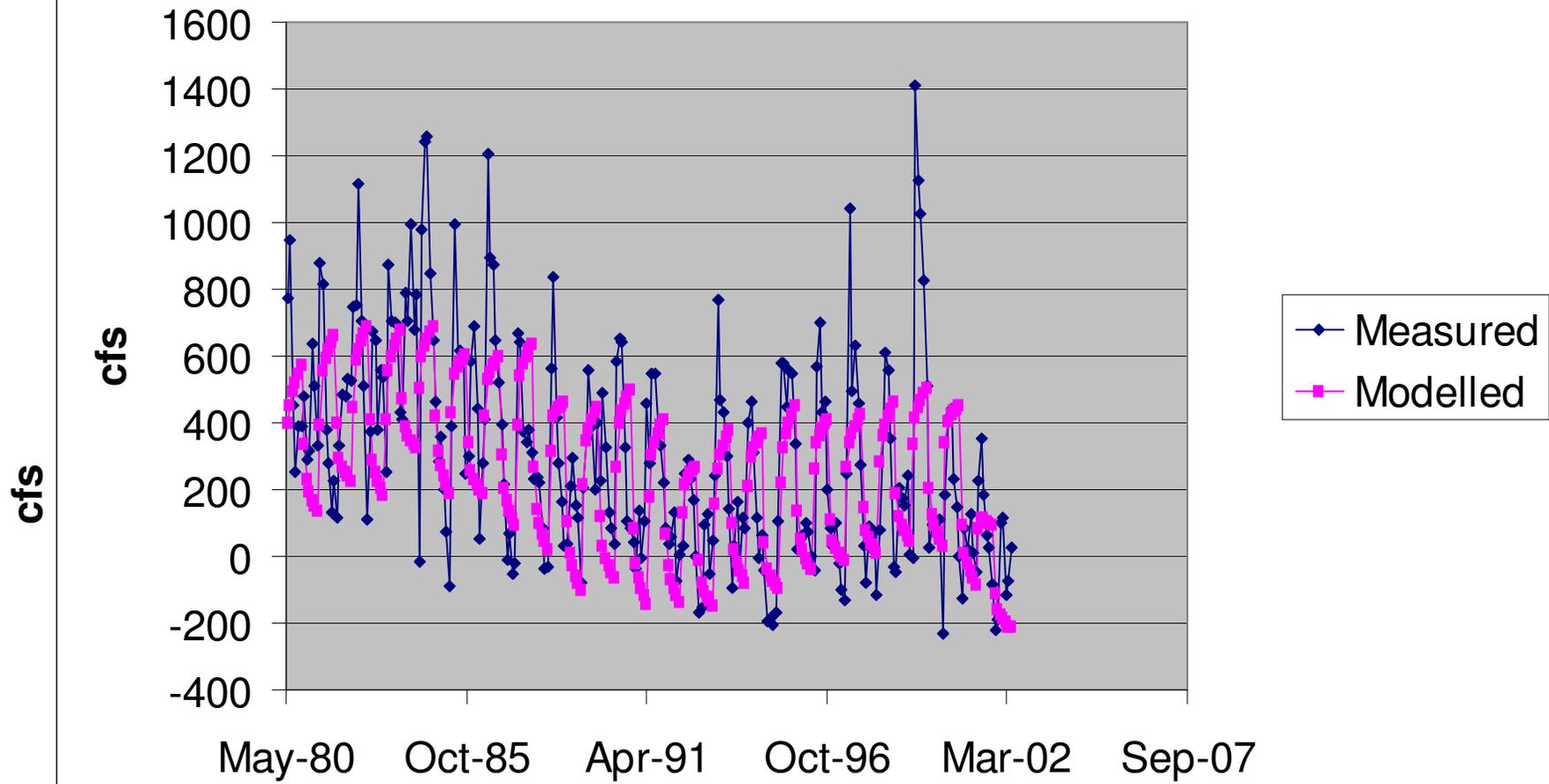


Boundary Adj. Snake River

- Snake River reaches



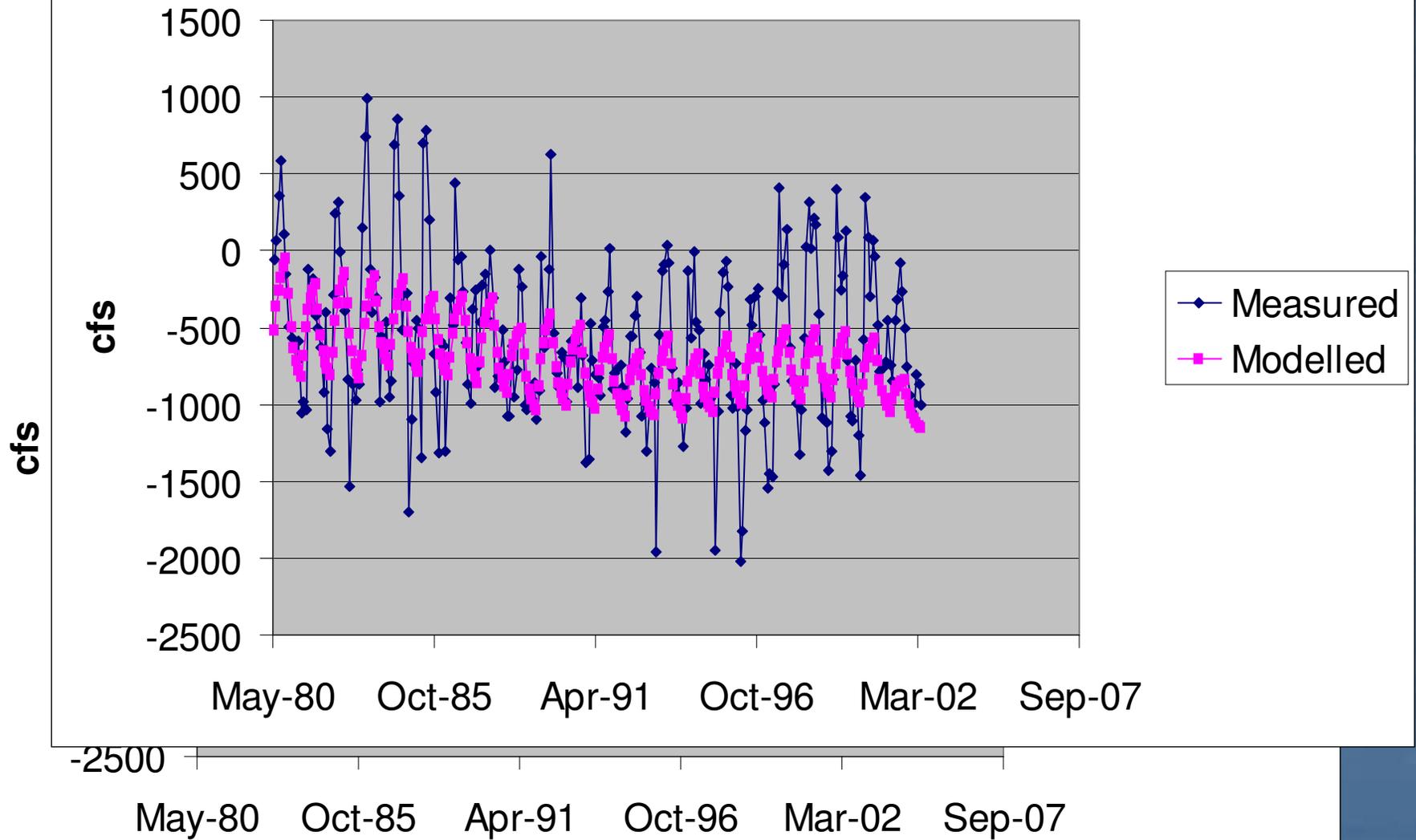
Ashton-Rexburg



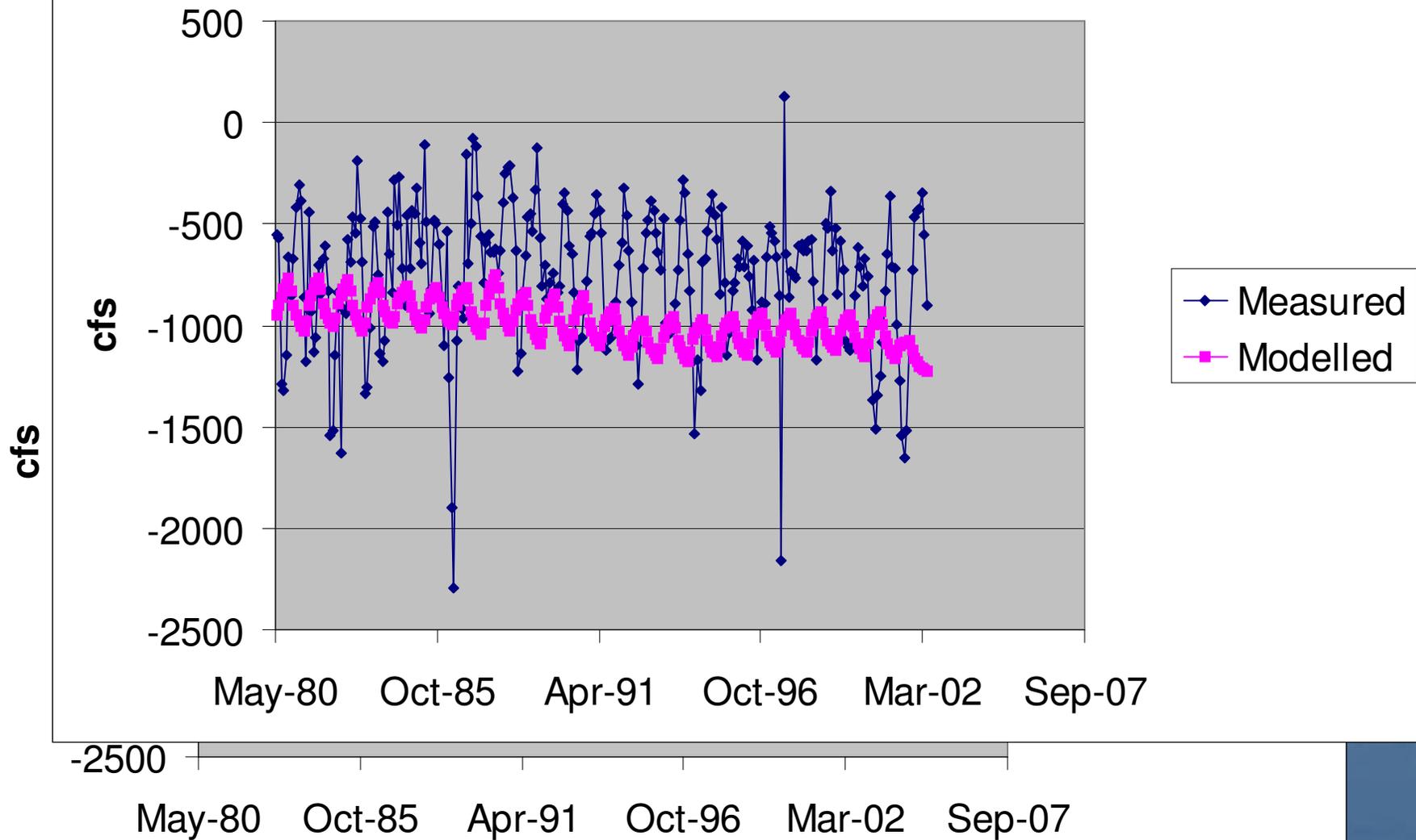
-400

May-80 Oct-85 Apr-91 Oct-96 Mar-02 Sep-07

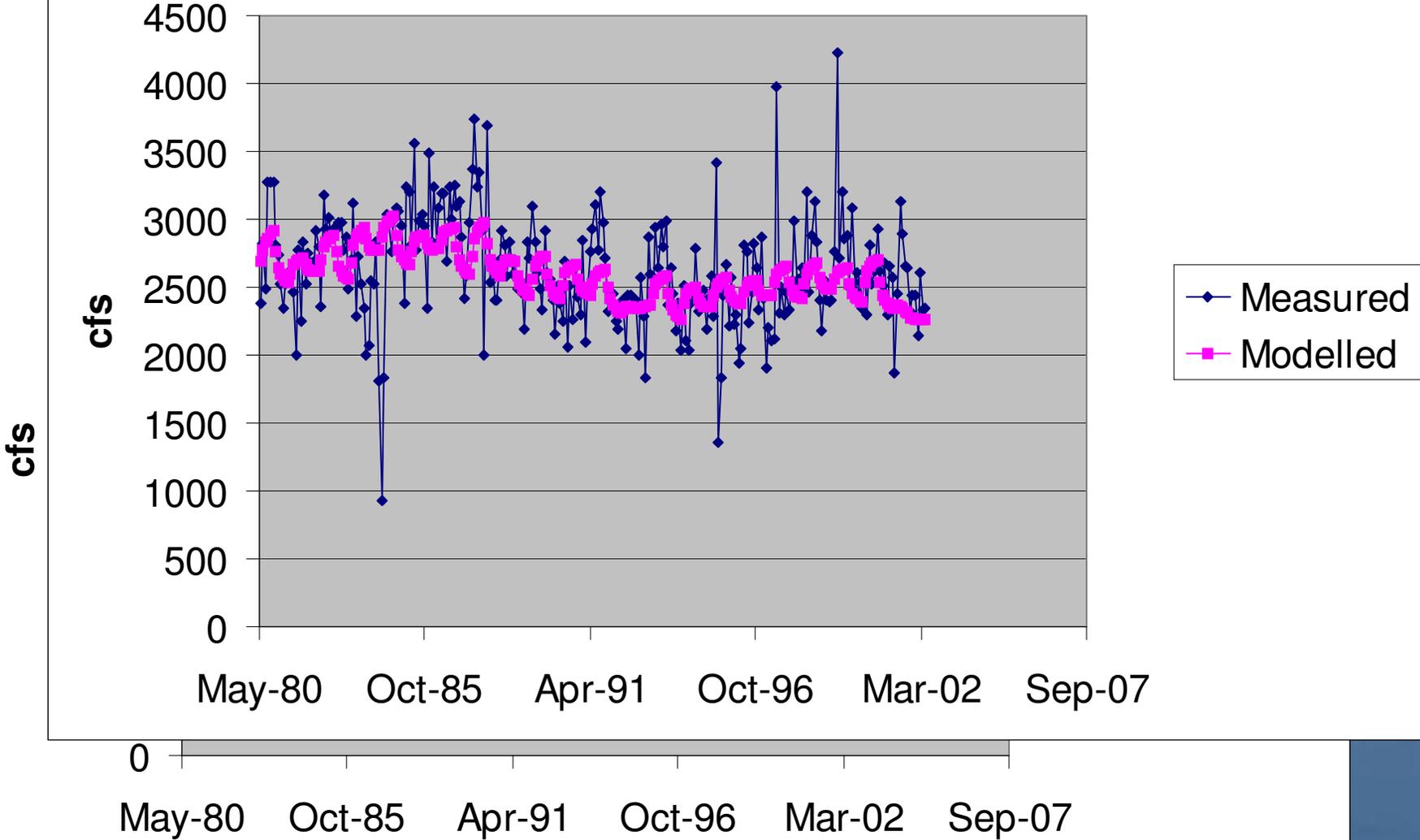
Heise-Shelley



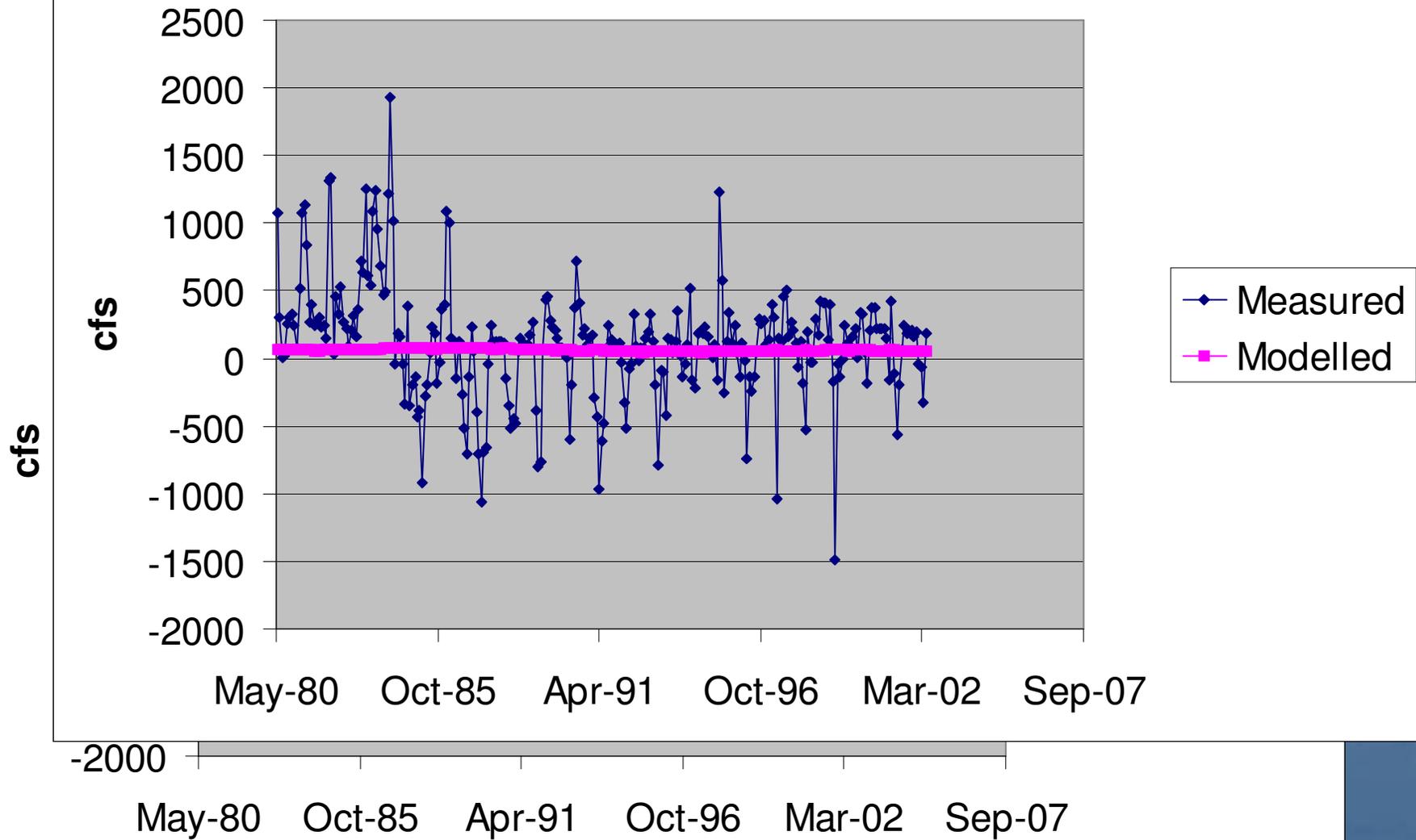
Shelley-nr Blackfoot



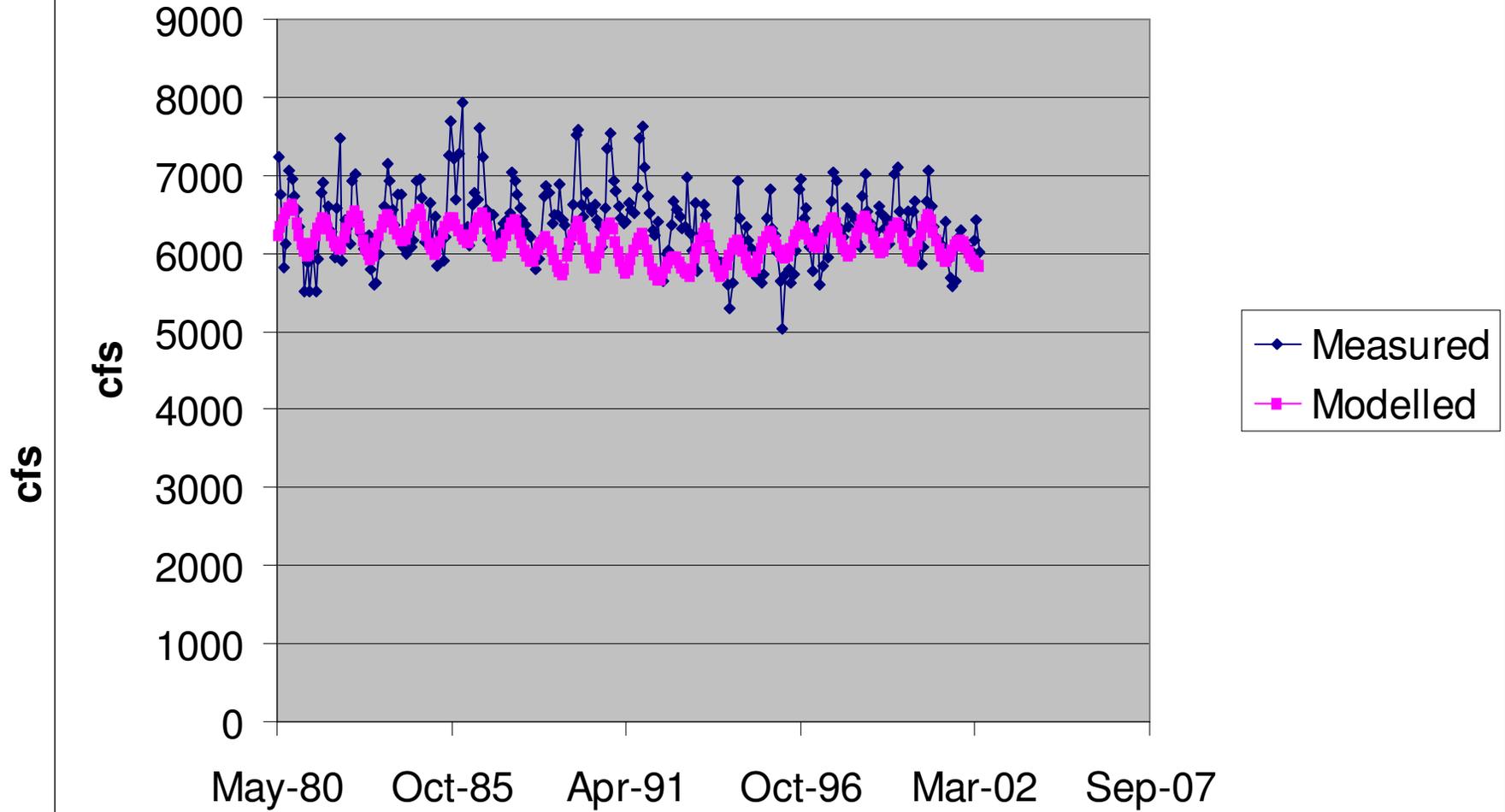
nr Blackfoot-Neeley



Neeley-Minidoka

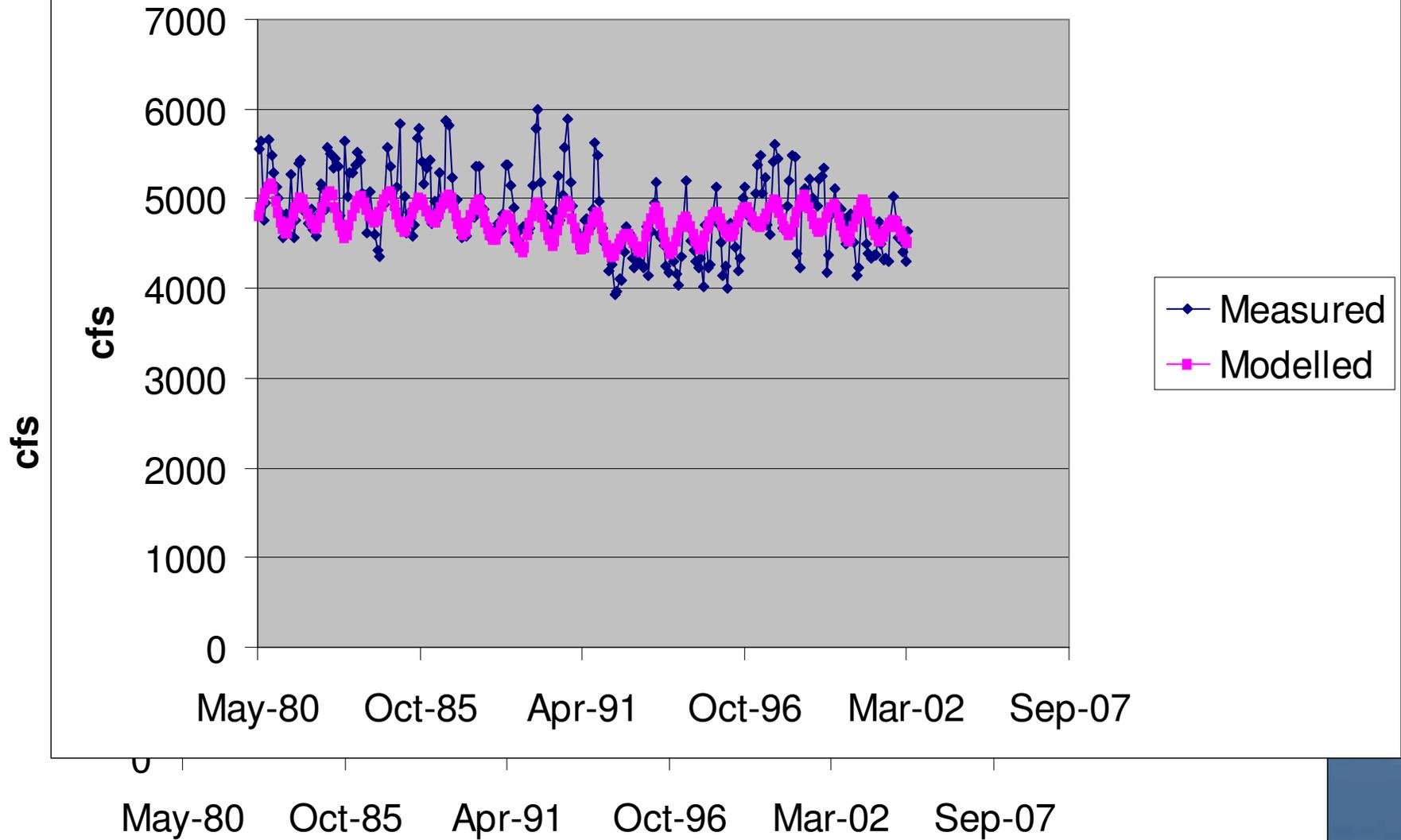


Kim_KH

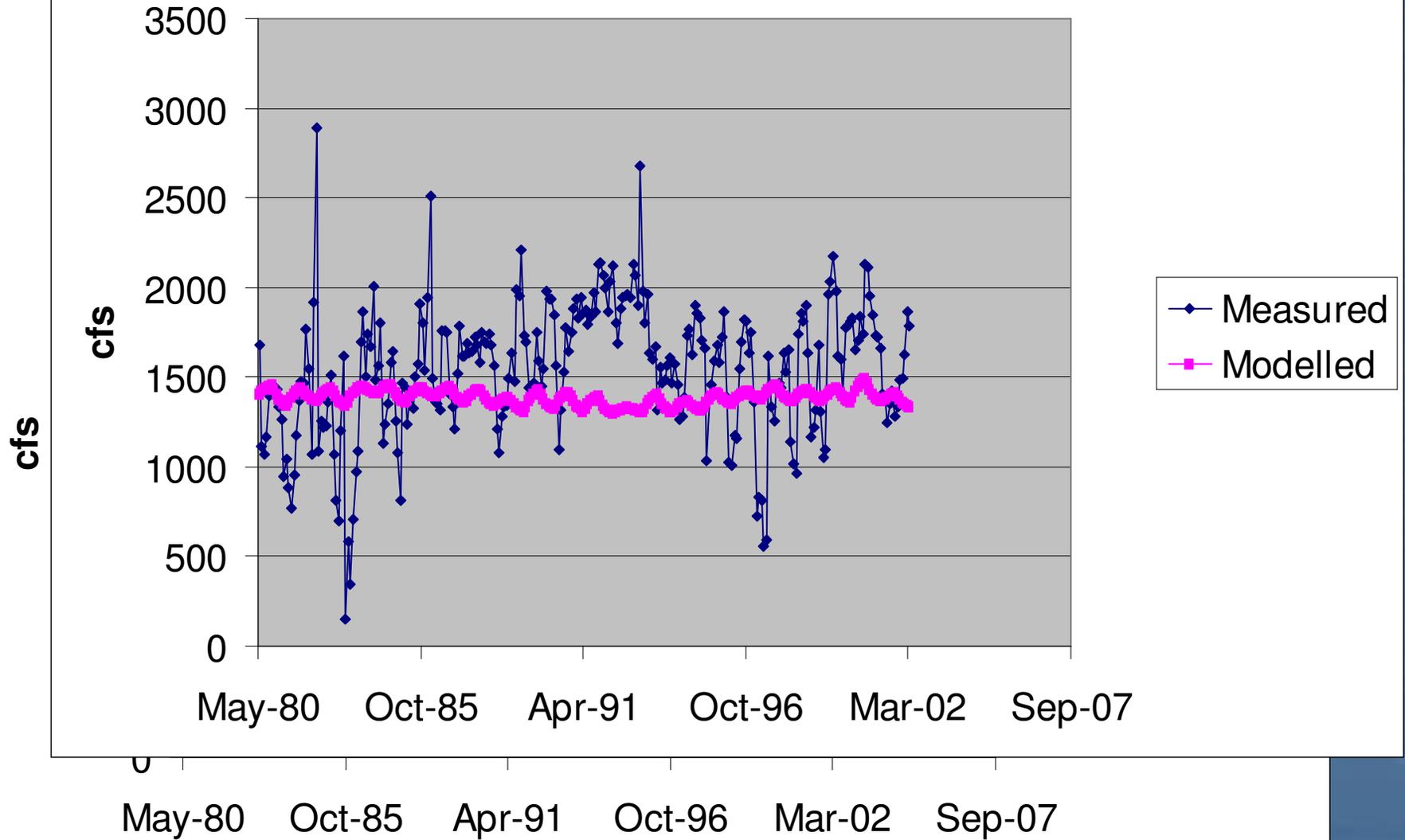


May-80 Oct-85 Apr-91 Oct-96 Mar-02 Sep-07

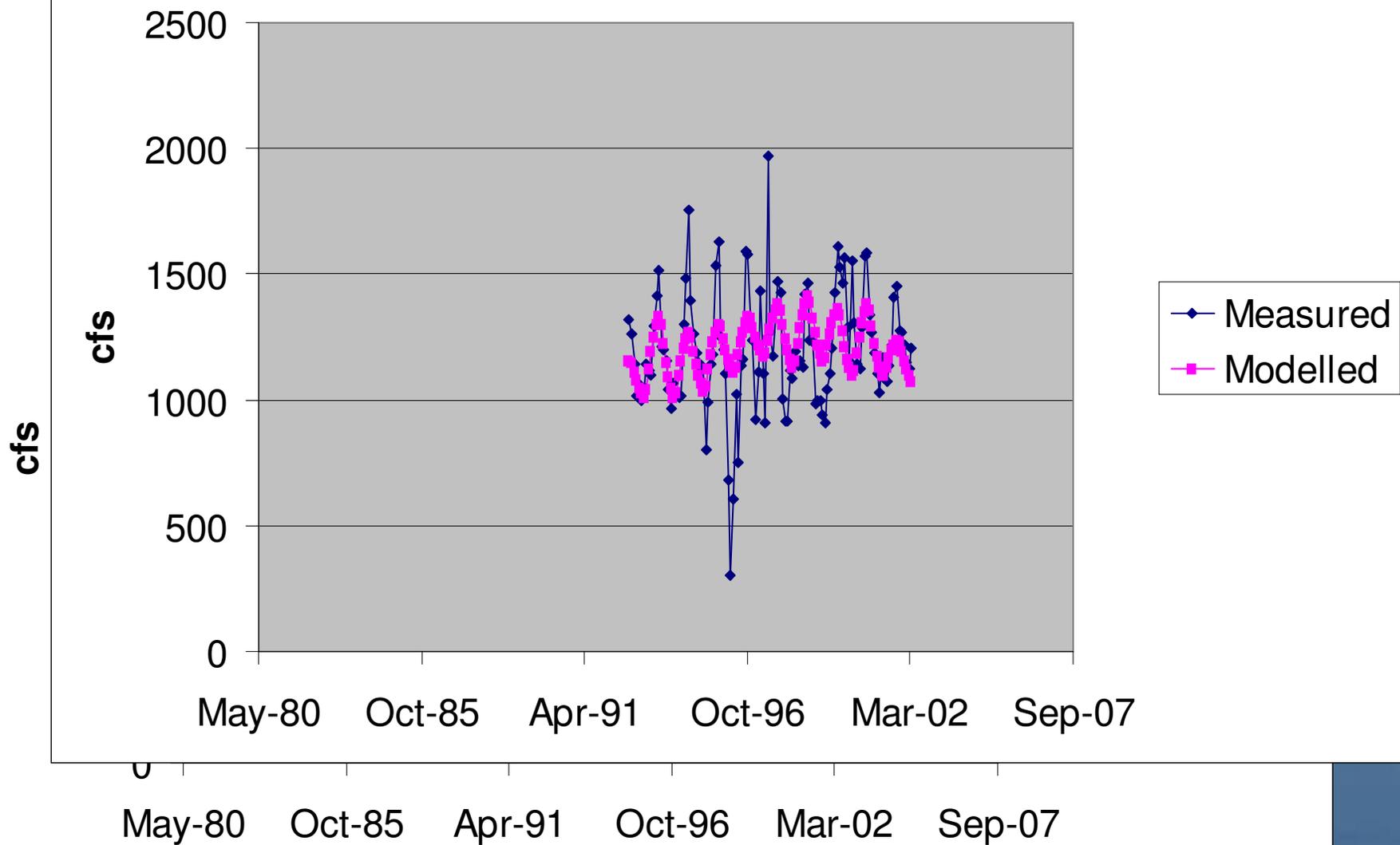
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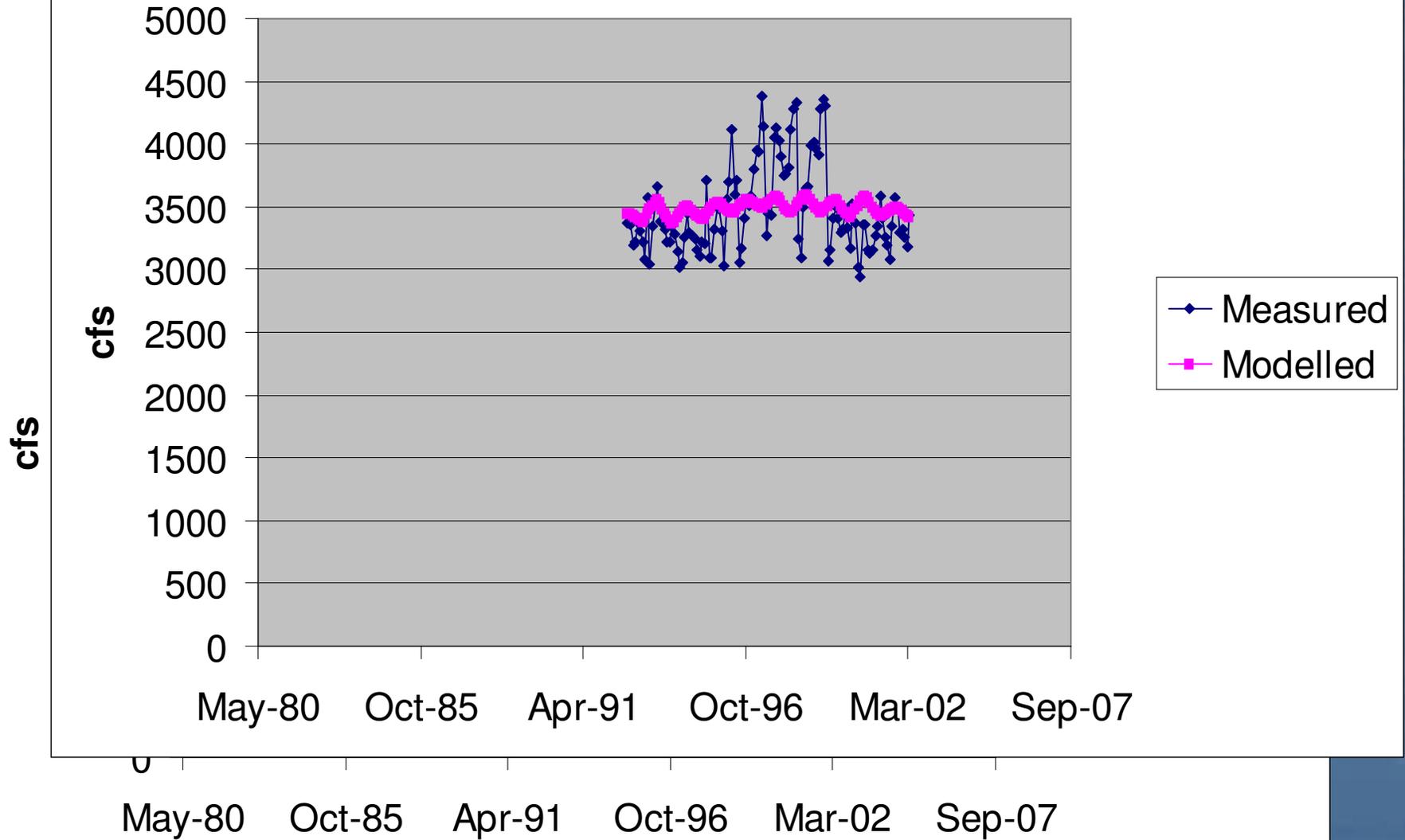
LSF_Kh



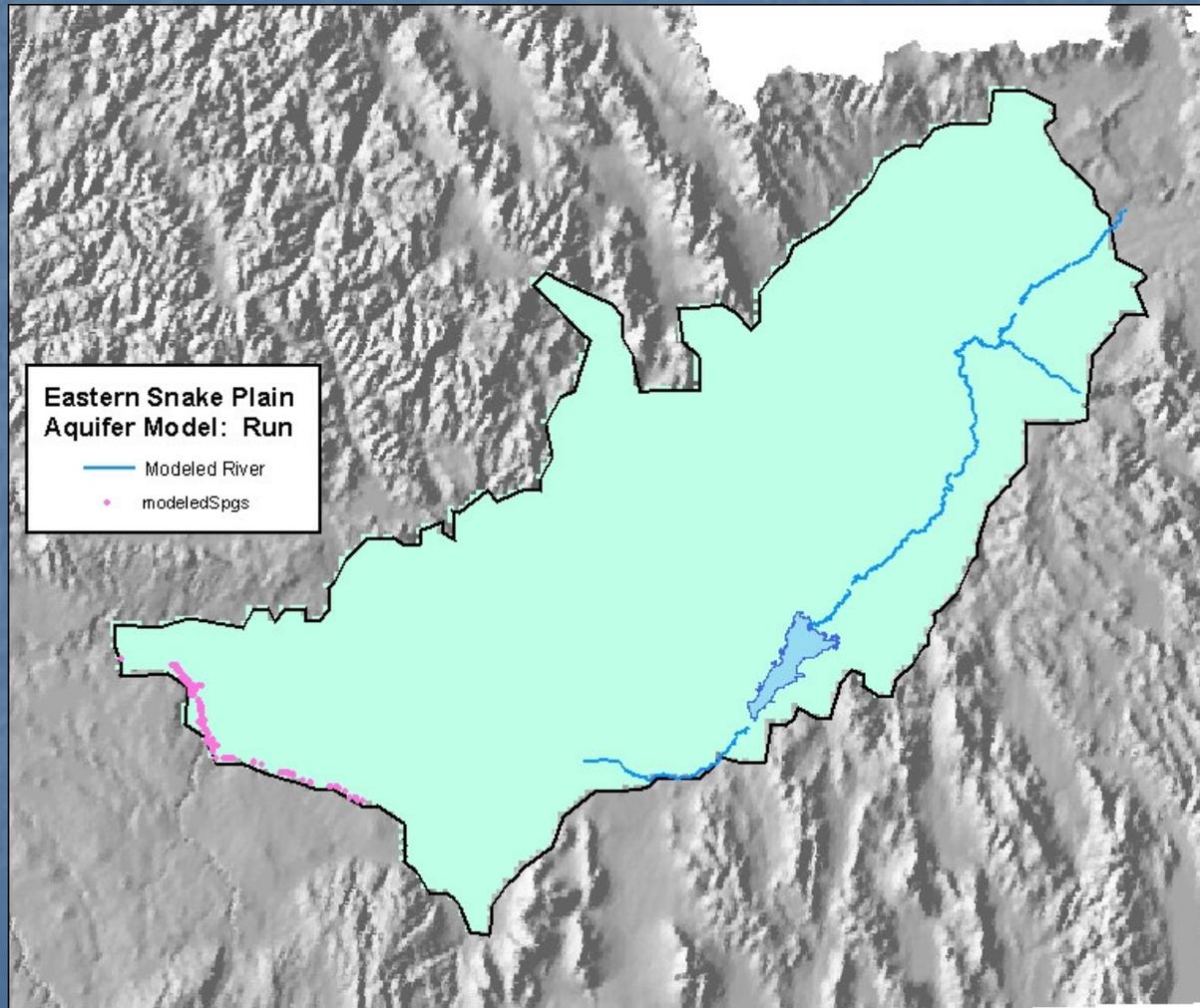
Kim_Bul



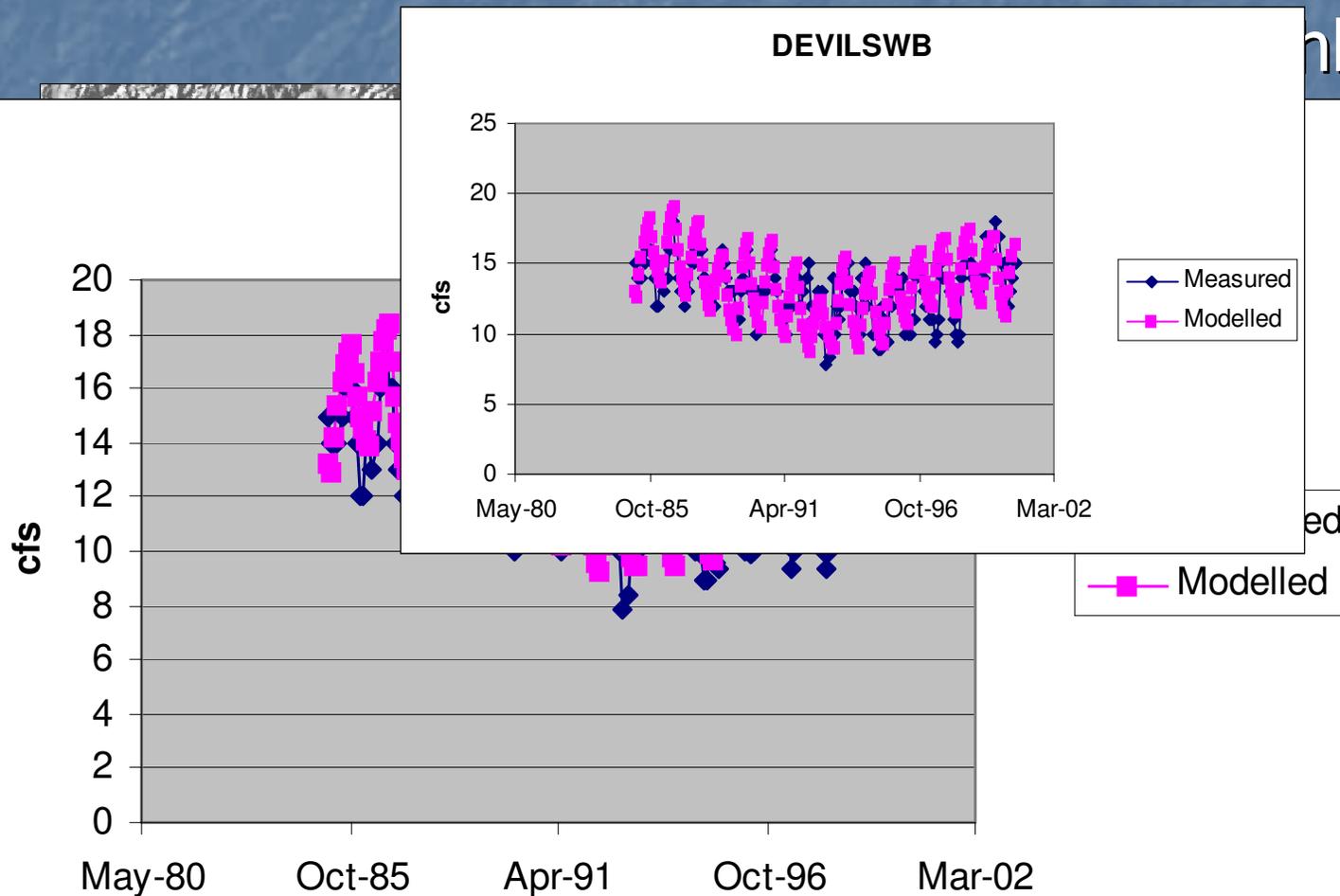
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Boundary Adj. Springs



Boundary Adj. Springs

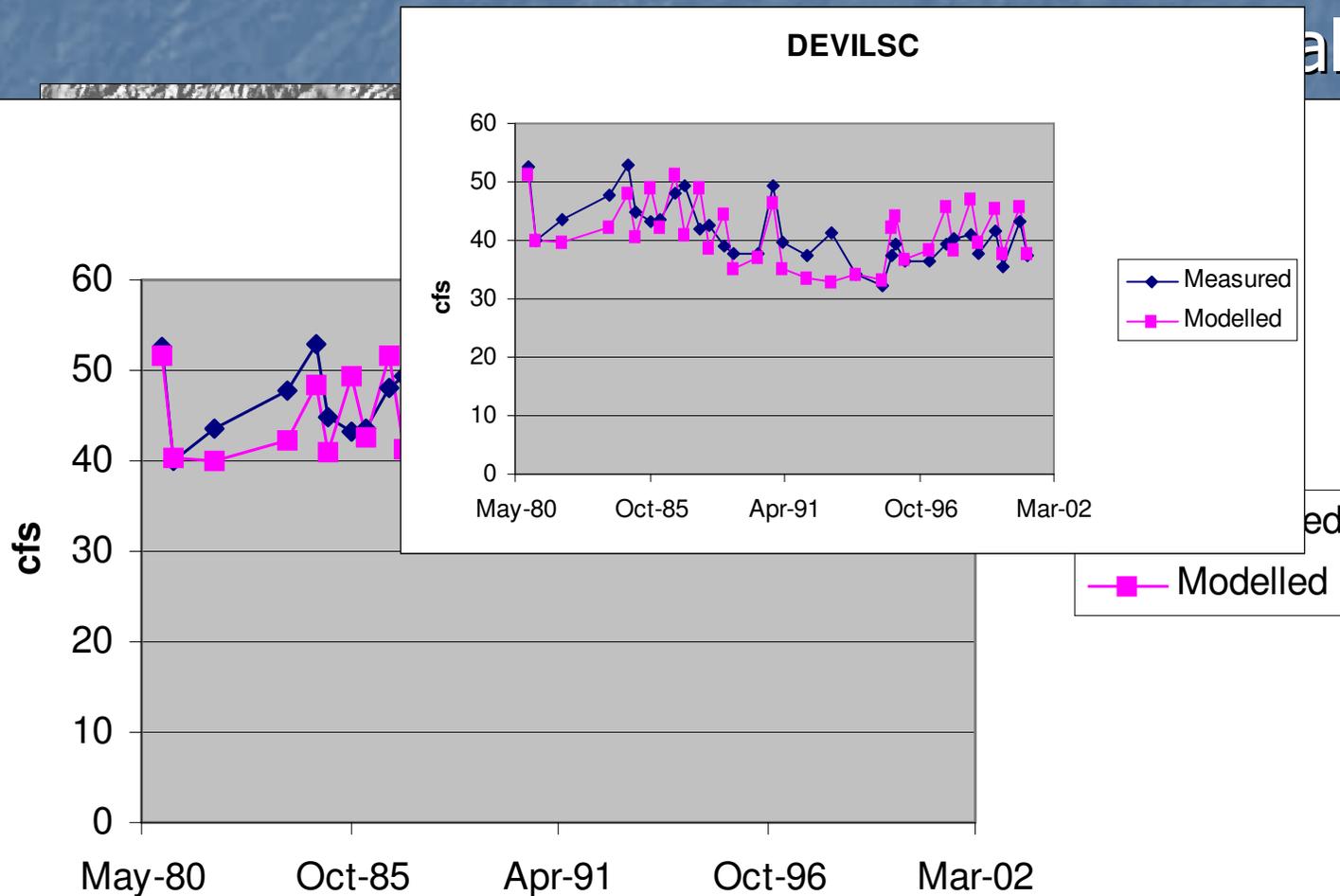


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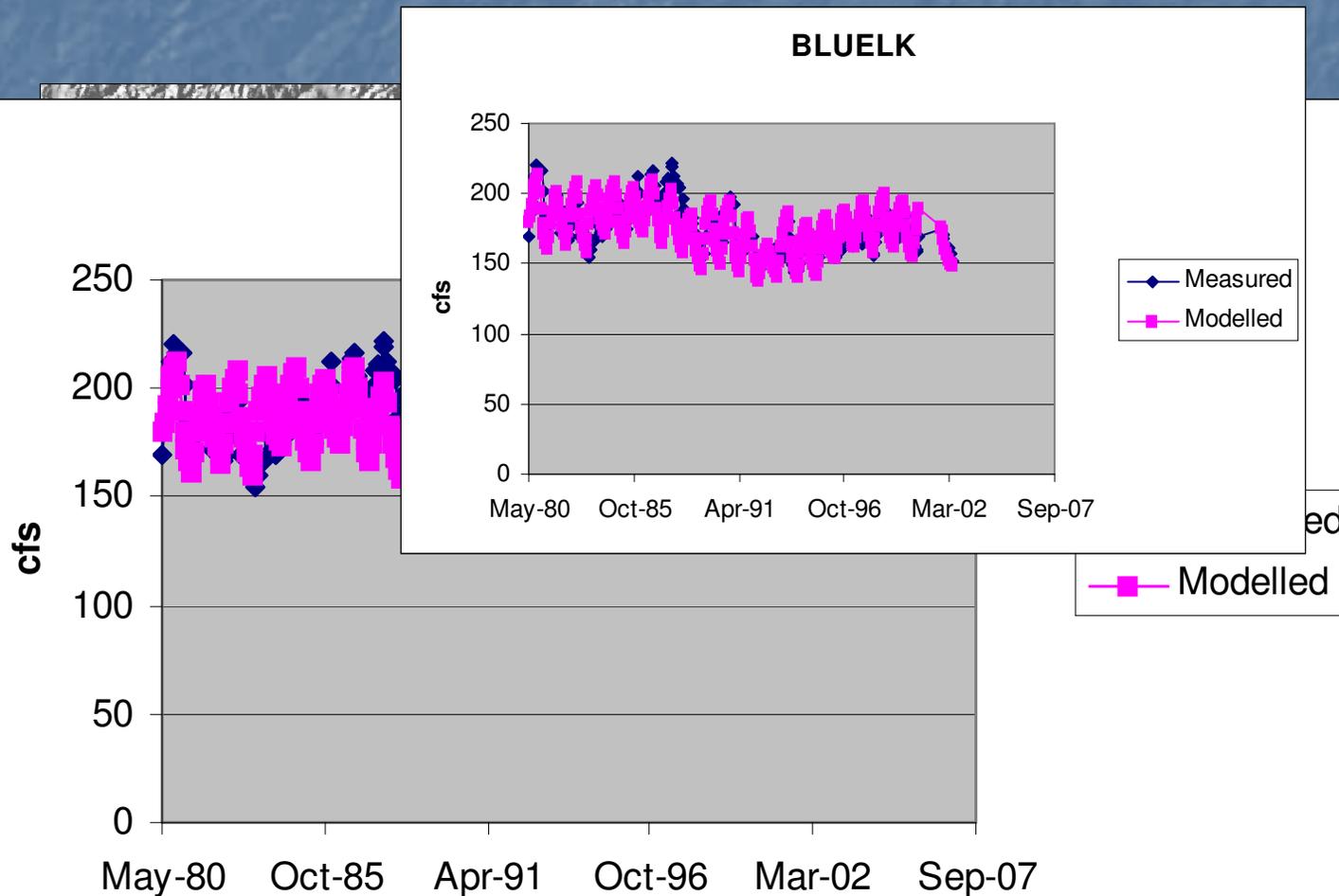
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Modelled

Boundary Adj. Springs

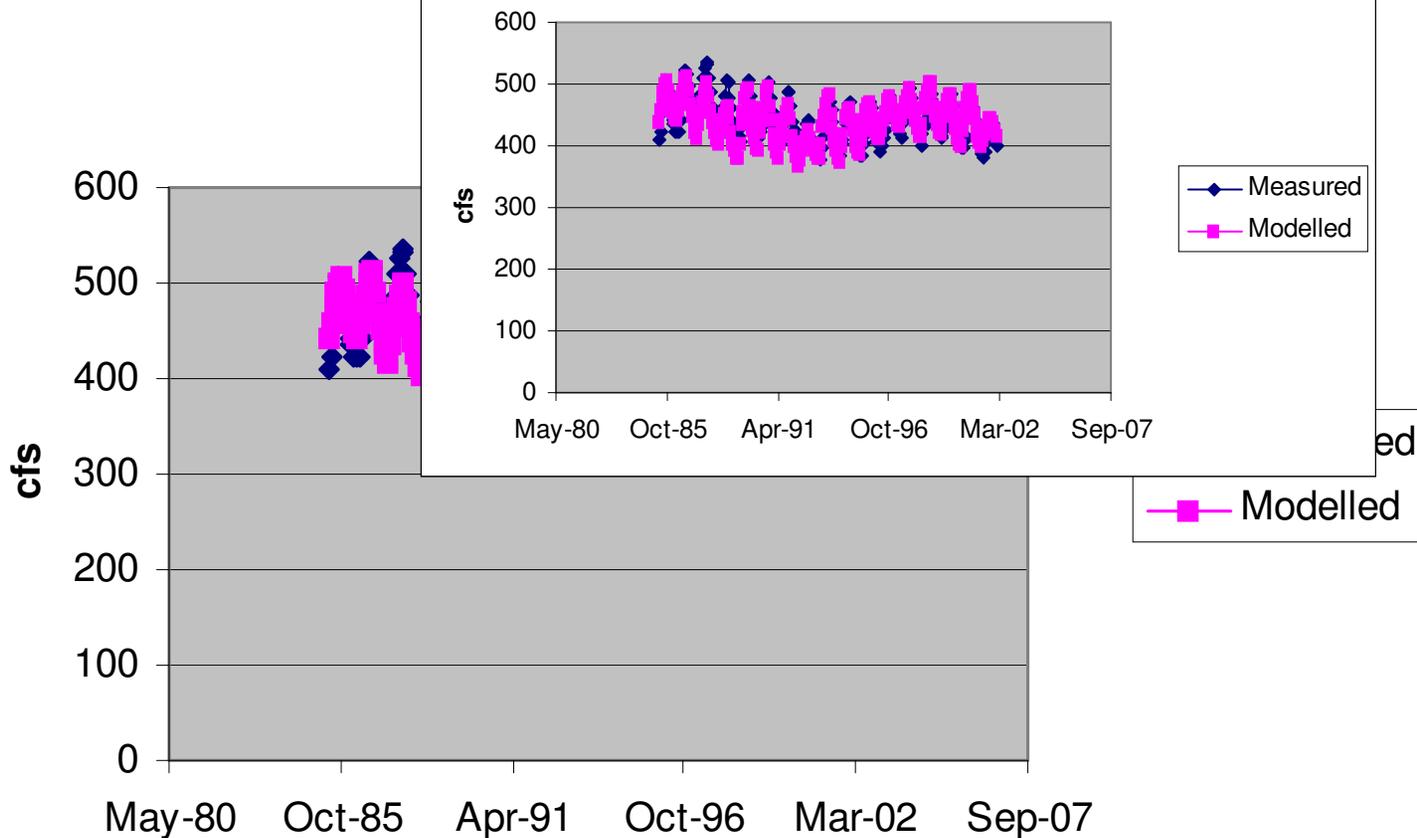


Boundary Adj. Springs



Boundary Adj. Springs

CRYSTAL

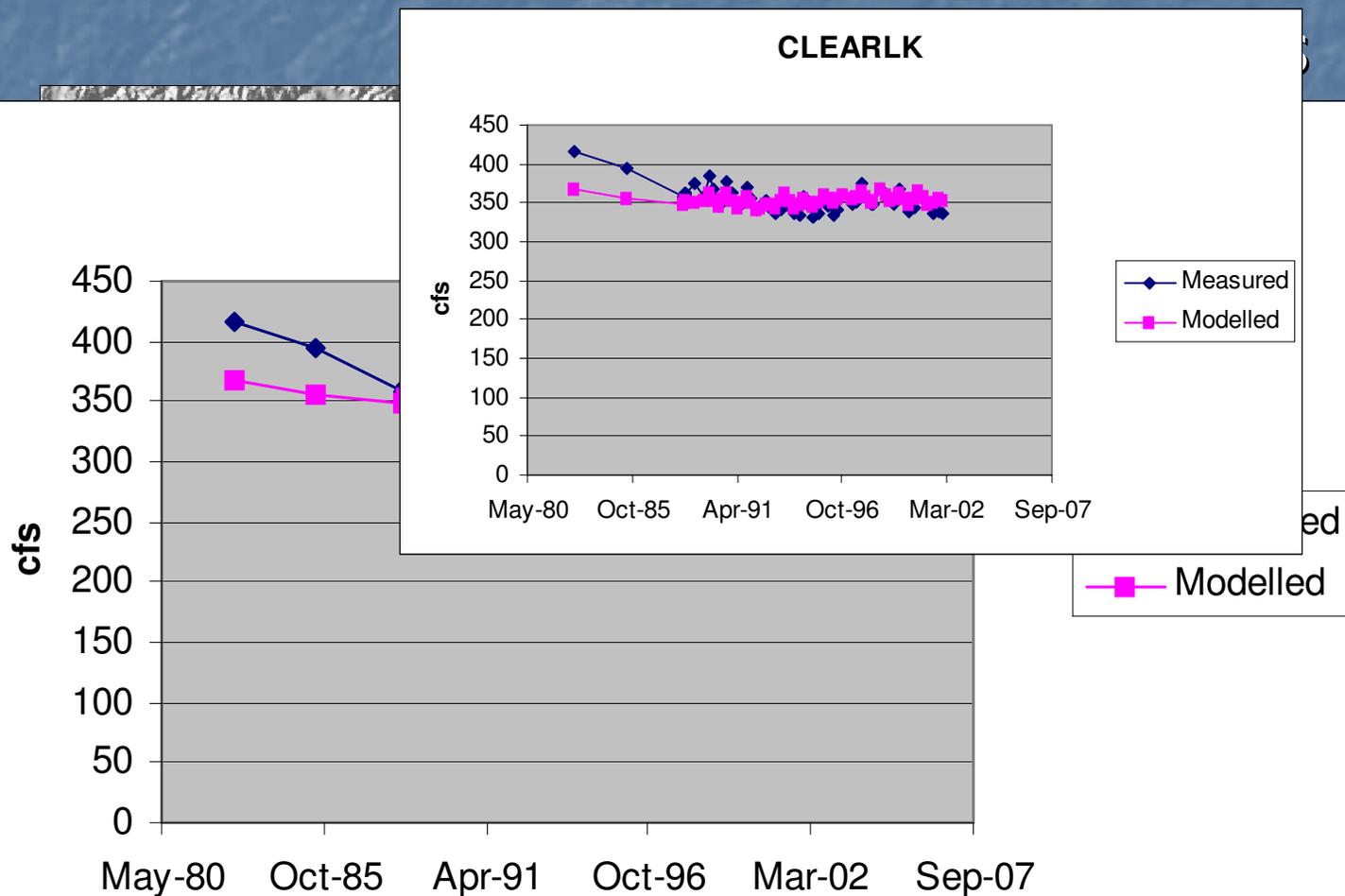


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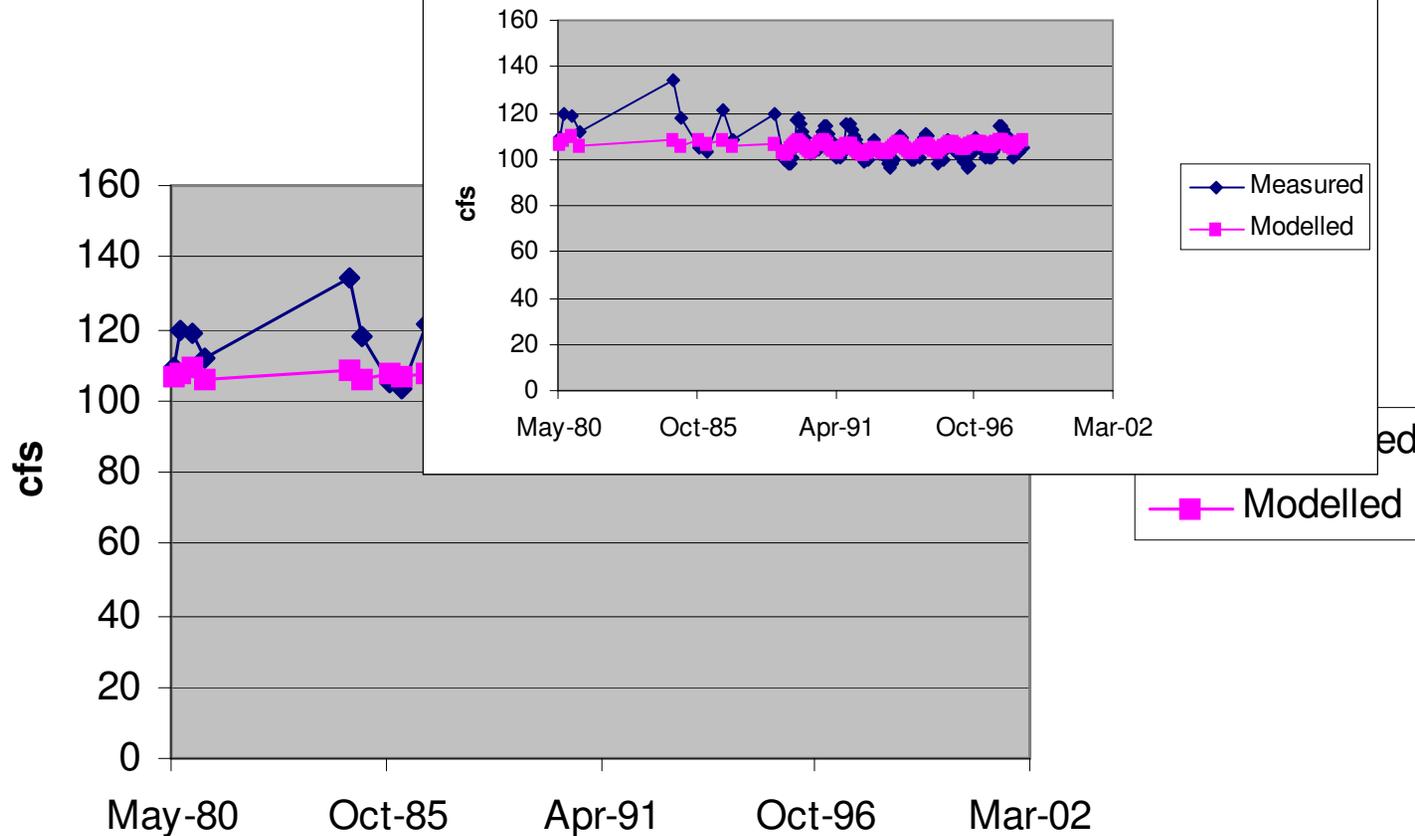
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Boundary Adj. Springs



Boundary Adj. Springs

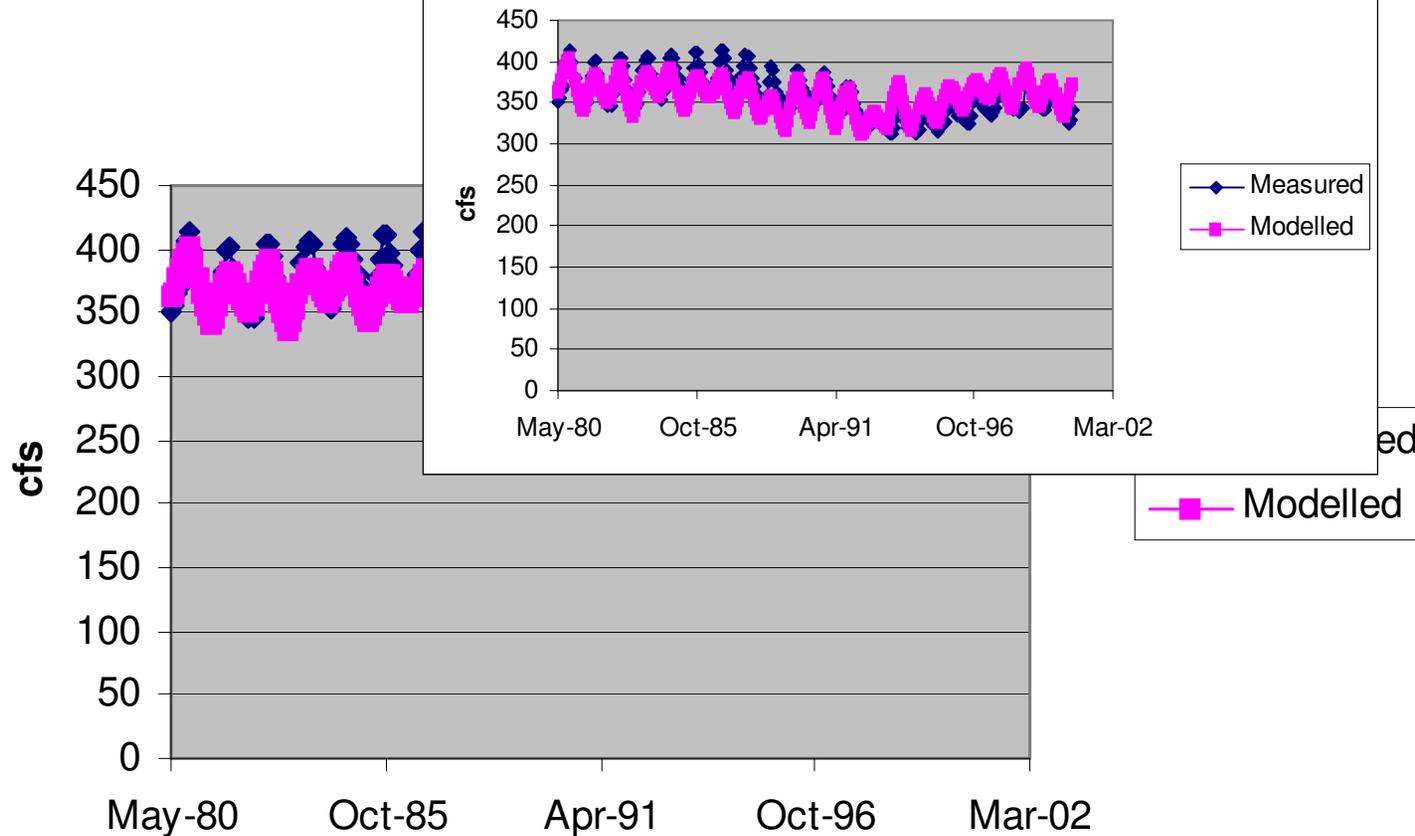
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Boundary Adj. Springs

Spring

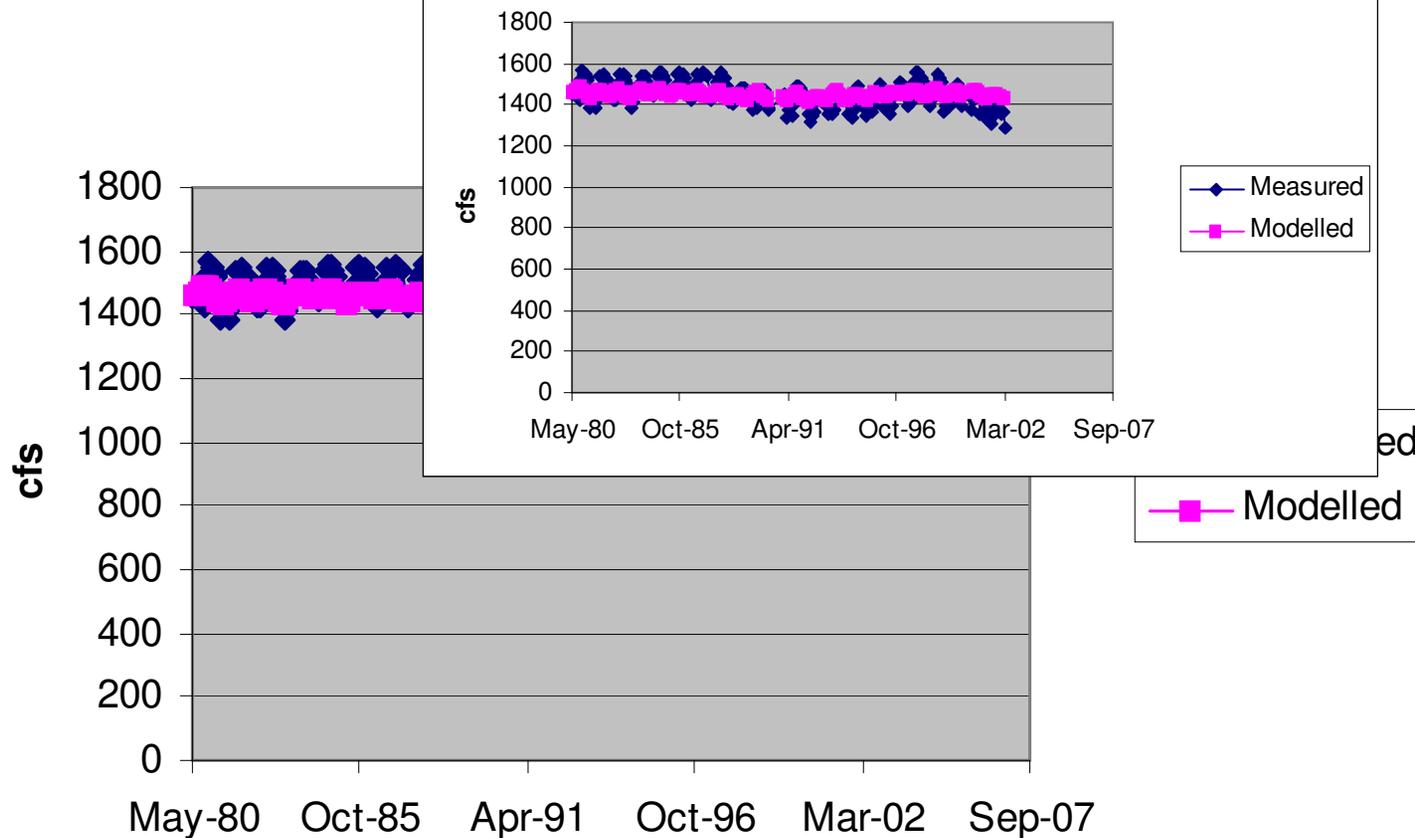
BOX



Boundary Adj. Springs

Springs

KSPGS

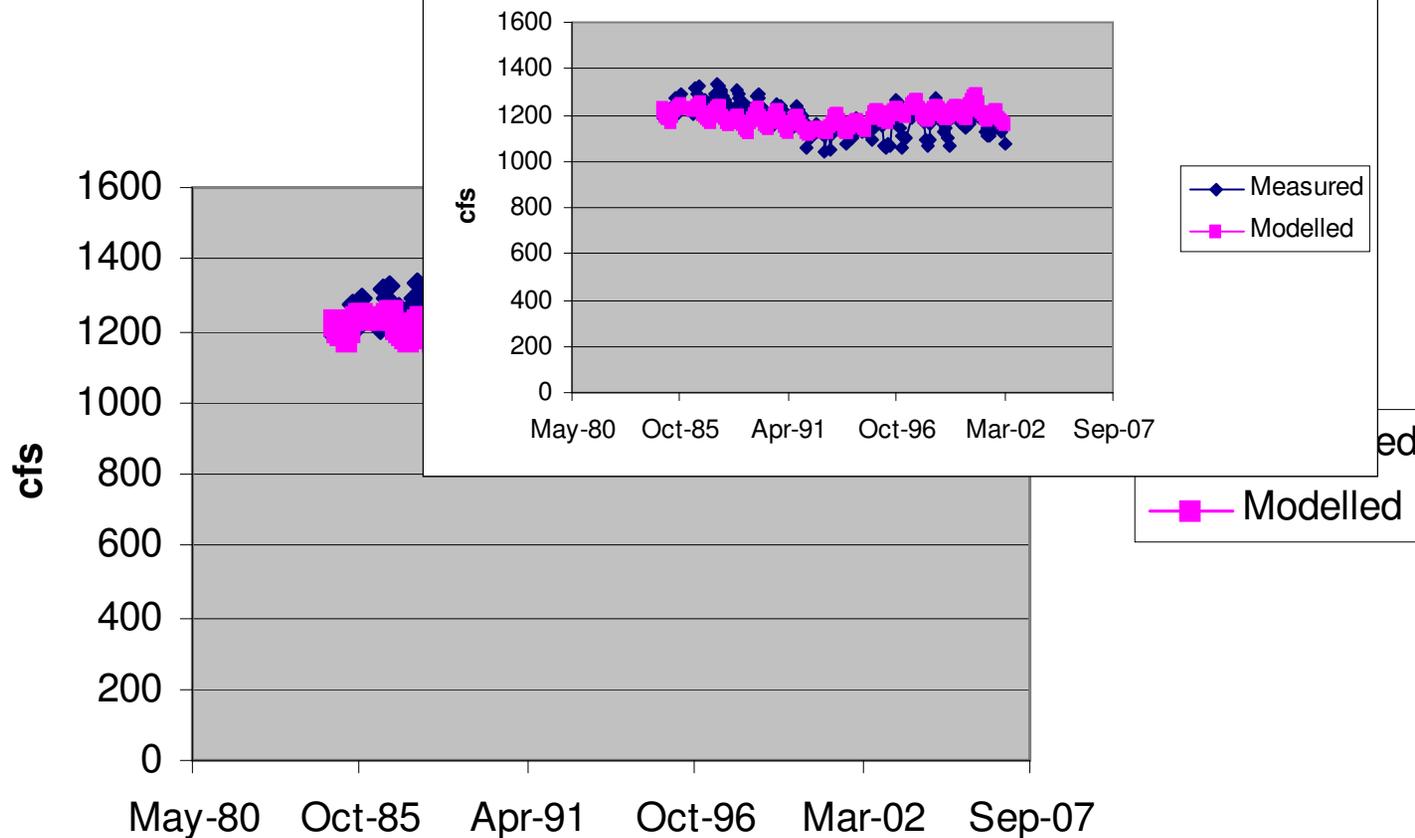


ed

Modelled

Boundary Adj. Springs

MALAD



End